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ABSTRACT

Two methods (generic or specific) of assessing competency based teacher performance were compared in three studies with 158 special and regular teachers. Two classroom observation instruments - one designed to measure generic teaching competencies at all levels and across all subjects, the other developed for special education teachers only - were evaluated. Study 1 was to determine which competencies from either instrument can successfully discriminate among special education teachers according to an external criteria measure. Study 2 used a different measure to test the validity of the instruments and examined minimal competency ratings. Study 3 attempted to discover how special and non-special teachers differ in competency as a content validation procedure. It was concluded from the studies that generic teaching competencies do exist and can be measured but that special education teachers require additional specific assessment items. Appended are "The Beginning Teacher Assessment Instrument", "The Classroom Observation Scale", and data tables. (Author/PHR)

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SPECIAL EDUCATION COMPETENCIES FOR TEACHERS PROJECT

A Validation Study in Identification and Measurement

Final Report, Year II

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

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Preface

I am indebted to so many people for their generous help and conscientious support of this project that paper does not allow space nor words provide enough appreciation. The many teachers, administrators, students, and experts who gave us their time and effort must remain anonymous to preserve confidentiality. Lester Solomon and John Hooper at the Georgia Department of Education were always available and understanding. My colleagues at M-CESA, the University of Georgia, Georgia State University, Stanford University, and the Atlanta area special education directors offered critical aid in this work.

Because of the collaboration of John Boutselis and Rick Kopp, this report is a complete document rather than disparate pieces of information. Elizabeth Creagh, Trieste Lockhart, Noreen Morrison, Debbie Pezeshkmehr, Karen Schwelling, and John Olive performed more than field assessments; they held the project together. Page Kampmeier, John Neel, and Bill Curlette gave us more than time and expertise; they gave us their patience. In the times of greatest frustration and most pressure, Suzanne Gerson kept us all confident that we would see the end. I must also tell all readers about Julie and Andy who understood why their husband and father came home so late so often.

To all of you, I am grateful. I hope our mutual efforts will help those for whom this work was done - the children.

Josef F. Stulac II
August 31, 1978

ABSTRACT

Two classroom observation instruments assumed to measure teacher competency were selected for a validation study. One instrument was designed to measure generic teaching competencies at all levels and across all subjects. The other instrument was developed for special education teachers only. The question to be answered is whether special education teachers can be adequately assessed in competency-based performance by the generic measure or will they require a specific evaluation device.

Three studies were conducted. Study I was to determine which competencies from either instrument can successfully discriminate among special education teachers according to an external criteria measure. Sixty-five volunteer participants were rated in the classroom by each instrument. At the same time the observation was video taped. A select panel of experts viewed the video tapes independently and sorted the teachers by their own opinions of competency. A comparison of instrument ratings by the expert Q-sort was made in an analysis of variance to identify which competency items met concurrent validity standards. Study II employed the same sample and expert criteria but used a discriminant function analysis to test the construct validity of the instruments. In addition, minimal competency rating levels were examined. The experts were asked to sort the teachers into three competency groups - those they would hire, those to keep as alternate choices and those they would not hire. Mean ratings on each competency were determined for each group. The divisions between groups were then called minimal competence points and proficiency points.

Study III attempted to discover how special and non-special education teachers differ in competency as a content validation procedure. Using only the generic instrument, a different sample of 193 participants representing all beginning teachers in eight contiguous school districts were rated. Within this nonvoluntary sample twenty-five teachers were in special education. A comparison by profile analysis using Hotelling's T^2 indicated which competency items measure the two populations similarly and, therefore, could be called generic.

Results of the data analysis identified which items could be used in both special and non-special education settings. Specific competencies for the best discrimination of competence among special education teachers were noted but the determination of minimal competency and proficiency points were inconclusive. Additional implications concerning certain demographic attributes such as age, sex, race, SES, experience, assignment, etc., were discussed. Generally, it was concluded that generic teaching competencies do exist and can be measured but that special education teachers require additional specific assessment items.

SPECIAL EDUCATION COMPETENCIES FOR TEACHERS: A VALIDATION STUDY IN IDENTIFICATION AND MEASUREMENT

> The argument seems to be that if you don't do anything, you can't do any harm. Since we do not yet have a full and complete understanding of the dynamics of effective teaching, we are expected to ignore the imperfect knowledge that we do possess and do nothing that requires such knowledge. ... If Columbus had waited until he had a complete and accurate map of the world before setting sail, his little fleet would still be sitting in Genoa.
>
> Donald M. Medley, 1977

INTRODUCTION

At least 33 states are now using some form of performance-based competency assessment in education and many others are preparing for implementation (Pipho, 1978). The Georgia State Department of Education has committed itself to a performance-based competency assessment procedure in the certification of its teachers and administrators. In a five-year, multi-million dollar effort the state hopes to be able to certify all its teachers through on the job assessments of generic competencies. The plan calls for teachers to be issued a three-year non-renewable teaching certificate upon graduation from an approved teacher training institution program (in Georgia this is a B.A. ending with a criterion reference test of knowledge in a particular teaching field). During the next three years of employment each beginning teacher is given several opportunities to be assessed on the job for competency demonstration. When minimal competence is demonstrated, the teacher receives a five-year renewable certificate. If during those first three years a teacher does not demonstrate minimal competence, they are not able to continue teaching in Georgia. The intent is not only to insure the performance competency level of teachers entering the profession but, furthermore, to establish a sort of quality control in the improvement of teachers.

The University of Georgia established the Beginning Teacher Evaluation Project (BTEP) to identify those generic teaching competencies to be assessed and to develop and field test an instrument to measure them (Johnson, 1976). A group of

special education teachers, however, raised questions as to the final instrument's applicability in their area. Are there such things as generic competencies that apply to both special and non-special education? Without an empirical base of knowledge but rather with intuition based on considerable years of experience, they persuaded the State Department of Education to fund another project in special education competencies (Kopp and Watlington, 1976). The study described here constitutes part of that effort.

This report does not attempt to resolve all the problems in competency-based special education teacher evaluations but will address one step in the enormous process. Like Medley's observation of Columbus, we do not want to sit in port at Genoa.

IDENTIFICATION OF THE PROBLEM

With the advent of competency-based teacher education in the late 1960's and early 1970's came a corresponding need in evaluation. The impetus of competency-based teacher evaluation focused more narrowly on performance assessments. Traditional teacher evaluations, where a principal might write out his subjective reactions toward a teacher in a prose-style, were frequently contested when used to dismiss teachers. These often insightful, yet unsystematic evaluations were viewed as capricious and arbitrary.

A school desegregation case in 1969 influenced the development of systematic teacher evaluations. In Singleton v. Jackson Municipal Separate School District (1970), the court directed the school district to base its selection of personnel for employment and dismissal on "objective and reasonable non-discriminatory standards" and required them to develop such objective criteria. In two subsequent cases of teacher dismissals (Baker v. Columbus Municipal Separate School District, 1972, and United States v. Texas Education Agency, 1972), the Singleton decision was drawn upon in requiring objective criteria for teacher dismissals. All three of these cases were decided due to the lack of objective criteria. As further test of the court-ordered objectivity in teacher evaluations, two more cases involving teacher dismissals, Meridith v. Board of Education of Rockwood R-6 School District, 1974, and Mims v. West Baton Rouge Parish School Board, 1975, upheld those districts' procedures for evaluation and dismissal. In these two cases the items upon which the teachers were evaluated were clearly stated in writing, the teachers had been well-informed of the procedures prior to the evaluations, and due process was found to have been safeguarded. The impact of the Meredith and the Mims cases on teacher evaluation has been an attempt to make teacher evaluations "objective." The word "objective" is currently being interpreted as nothing more than written descriptions of itemized behaviors. The obvious shortcomings of the potential objectivity of any teacher evaluation make the subject area dangerous in application and all the more important for educational research.

Competency-based teacher performance evaluation was, at first, thought to provide an approach toward objectivity and accountability (Schmeider, 1973). Criticisms were made at the same time as to its feasibility and practicality (Sandoz, 1974). Breaking down teaching into many different competencies may

never add up to the whole when put back together (Broudy, 1972). However difficult, the mandate was clear: teachers will be held accountable for the demonstration of competence. The problem of how to do it leads to still greater problems in identification, measurement, and validation of teacher competencies.

The goal of this study will be the validation of an instrument to assess special education teacher competencies. Three particular areas of concern are raised. The first is to decide which competencies are important. The identification process will have to justify the concept. What if there is no such thing? The second concern is for measurement outcomes. By definition, competencies must be measurable either quantitatively or qualitatively. When is a special education teacher competent? The third concern is for methodology in validation. Truth may not be as much an end as a process. Just as all things are relative so may all things be valid. How are special education competencies for teachers to be validated?

Identification of Competencies

A preliminary concern is whether or not there is such a thing as a generic teaching competency. Are there skills and abilities that all teachers must demonstrate? Perhaps the particular subject area, kind of student, type of institutional setting, or even personality characteristics of teachers will lead to only specific teaching competencies.

After a lengthy ERIC search for experimental data comparing special and non-special education teachers, the conclusion is reached that no such study has been conducted. Yet, noted theoreticians have written volumes on the unique skills required by special education teachers. Haring and Schiefelbusch (1967) point out that attention to behavior and its modification in special education may have application to the education of children. Directing his comments at educators in general, Schiefelbusch writes:

> For these the process may involve simply requiring children to learn what they are taught. To them learning is little more than conformity, and their approach may be clearly and simply one of prescribing the content and the requirements. In effect, they specify terminal goals and fail to provide a program.
>
> In contrast, the special educator has the task of determining how children with a wide range of exceptional problems and attributes

> should be taught and how this teaching may affect them as individuals and what effects (benefits) it may have for others who are interested in their welfare.

It seems to be an accepted fact among many educators that special education needs special teachers. Dobson (1972) has been working to identify individuals who may not be suited to work with disturbed children because of their own personality limitations. Bullock, Dykes, and Kelly (1974) have gone as far as accepting the construct that special education teachers are different from general education teachers and have proceeded to develop inservice training in special education.

On the other hand, many scientists in special education have a reversed perspective. Hurley (1974) chastizes his own community for not making themselves fully aware of controversies in the world of education generally. He finds that training special education teachers into more specific and narrow areas of concentration is isolating.

> Any teacher I prepare should be a remedial and learning disabilities specialist as well as a behavior management specialist no matter what the handicapping conditions may be. Even though we recognize the heterogeneity of children classified under our current labels, the degree of heterogeneity will increase when those labels are removed. Therefore, it will be even more incumbent on us to train persons capable of solving problems, educational problems.

The concept of mainstreaming where special education students are placed in regular classrooms for instruction continues to prosper with Public Law 94-142. In this construct, teachers should have the skills of a special education teacher (if they do exist) and operate in a general education environment. Connor (1976) recognizes the disagreement in teacher training programs from general to special education.

> Opinions on teacher preparation range from the cyclic calls for its demise to those mandating highly specific content and method. The former is based on the notion that dedication, good intentions, and actual experiences are sufficient and that it is impossible to impart pedagogical expertise in any formal manner to the current mandated efforts toward a competency based teacher preparation stated and evaluated in terms of specific behavioral objectives and performance criteria. Noteworthy in an attempt to gain perspective on professional preparation of educators is the persistence of this seeming dichotomy throughout the history of teacher education.

One of the major results of this project may be a step toward identifying some differences between special and non-special education teachers.

Special education teachers, for example, might easily need to be quite different in teaching methods or instructional style from a self-contained regular elementary school teacher. The non-special education teacher assumes her class to be similar in such needs and would plan for homogeneous types of instruction. If she were a second grade teacher she might expect all her students to have learned how to print in the first grade but to still need to learn cursive writing for the third grade. Consequently, she would prepare activities in cursive writing during the second grade school year for a group of similar students. The special education teacher, on the other hand, is assigned a group of children who are already identified as different from their homogeneous group of peers. This teacher begins with individual diagnoses and then specific prescriptive treatments for each student.

That one change in approach, the initial perception of the similarities or the differences of their students, may cause special and non-special education teachers to behave in two separate worlds. That initial difference might easily affect such competencies as individualization, diagnosis, prescription, group instruction methods, type of lesson planning, behavior management, classroom procedures, interpersonal relations, and so forth. Even if the competencies were truly generic and desired for all teachers, there would still be room for doubt in the rating level that each group might receive.

This problem and the possibility that an answer may not be easy to find does not reduce motivation but rather increases the challenge. Richard Weatherman (1976) concludes:

> Inability to specify and justify competencies appears fraught with danger as court decisions and legislative pressures regarding accountability of programs to educate are added to other general concerns of citizens for education as it is now structured.

Measurement of Competencies

Thus far, competency-based teacher evaluation has been refered to loosely as a movement. Generally it might be described as a method for measuring teacher

ability. The connotation of performance demonstration is often assumed but should be clarified. Houston (1974) makes the distinction to be followed in this paper. Competence stresses the notion of a minimum standard for effective performance. Performance-based teacher evaluation refers to the manner in which a learner demonstrates ability and implies overt demonstration in the employment of skill. The additional term of proficiency, an acceptable level above minimal competence, leads to another problem.

If competencies do exist, whether generic or specific, they must be measurable to say one is or is not competent. A paragraph is quoted from an AACTE report (1974) on performance-based teacher education (PBTE).

> Assessment lies at the heart of PBTE. Goals of instruction must be stated in assessable terms; learner performance must be assessed and reassessed throughout the instructional process; evidence so obtained must be used to evaluate the accomplishments of the learner and the efficacy of the system. Remove assessment from PBTE and all that is left is an enumeration of goals and provision of instruction which hopefully will lead to their attainment - not much on which to pin one's hopes for significant improvement in an educational program.

The second major problem, then, using Houston's terminology and the AACTE recommendation, will be to describe the level of competency attainment. Once the particular competency needed has been identified it will be necessary to pinpoint when a teacher demonstrates a minimal level and a proficient level of performance. Some researchers argue that there is no definition of competence or incompetence in teaching (Coker, 1978). These studies prefer terms like more and less effective teaching, leaving the acceptable standard of quality to administrative decision. In the same line of inquiry in evaluation some research argues that since there is no certainty of proof and conclusiveness, research is fundamentally an act of persuasion (House, 1977). The question is raised if a minimal point of competency were described, is it a validated fact or a preferred state upon which to base enlightened judgement.

On the other hand, administrators are being required by the courts to show proof of job-relatedness in their employment practices. To say a competence may be measured on a continuum as more or less effective, does imply a point at which

teachers cross over to a positive or negative behavior. A procedure for determining such point or points for each competency will need to be determined.

Methodology of Validation

The third problem to be addressed in the study of competencies is an appropriate methodology. Berliner and Rosenshine (1976) warn that researchers seem so eager to capture variables for data analysis with rating scales and frequency counts, that they apparently forget to check if their methodology is appropriate to the phenomena they are interested in studying. Due to contextual variables, they point out, studies which count or rate behavior but do not deal with the question of appropriateness of teacher behavior have made qualitative sacrifices for quantitative results.

Travers (1974) and Medley (1977) argue that the debate over qualitative and quantitative studies on teacher effectiveness is at least practically resolved by what they have produced. They find that the quantifiers have established consistent student outcomes by teaching behaviors while the qualifiers still seem to contradict each others' findings. That question will not be resolved in this paper but the chosen course of the study will have to accommodate both perspectives and, when necessary, rationally decide the merits of one method over the other. To this end the basis of such decision-making will be provided by the courts whose final say in any implementation procedure will ultimately be heard. In the Georgia Power Company case in 1973, the question of employment test validity was confronted (Deneen, 1976). The court declared that testing is a relative concept and that the best study would involve a sample of persons employed in which concurrent validity was analyzed. The conclusion to be drawn, then, is that whatever competency assessment device is created, it will have to be verified in the employment arena of teachers. When teachers are employed to produce high standardized scores on achievement tests among their students the quantifiers of process-product relationships (teacher behavior - pupil learning) are on target. However, when teachers are employed to socialize, alter behavior, or treat specific learning disabilities the qualifiers or measures of appropriate behaviors may direct the course of action.

The many different lists of teaching competencies testify that no one list is complete. Most competency lists begin with the opinion of educational experts

(teacher educators, state department leaders, or researchers) who compile descriptions of good teaching behaviors. Many studies go further by verifying their competencies with practicing teachers' opinions (Mackie, Kvaraceus, and Williams, 1957; Johnson, 1977). Shores (1973) points out that,

> Before a competency statement is considered valid, it should be demonstrated that successful teachers actually engage in the behavior or skill described, that the skill discriminates between successful and unsuccessful teachers, and that it has the desired effect on children's classroom performance.

Another source of competencies may come from the practitioners themselves. Rather than research or administrative experts, the teachers working with students in the classroom may be an important source of expertise. Although at least one study (Soar, 1977) finds that teachers do not necessarily know what is effective and what is not, the specific origin of competency lists may effect the eventual acceptance of accountability standards. In Georgia two different performance-based competency assessment instruments have been developed. It has been proposed that special education teachers be evaluated for certification by one or the other. The BTAI instrument was created by research experts while the COBS instrument was created by teacher experts. The two instruments have many similarities but the methodological question of origin and conclusiveness must be validated.

The Instruments

The Beginning Teacher Assessment Instrument (BTAI) is included in the Appendix. Briefly described, this instrument has four components that total twenty competency statements. Each competency statement has several descriptor items that can be rated from 1 (low) to 5 (high). The four components are Teaching Plans and Materials (TPM), Classroom Procedures (CP), Interpersonal Skills (IS), and Professional Standards (PS). Ratings are given on each item after reviewing a prepared set of lesson plans and observing a classroom for approximately one-hour. A trained data collector, a peer teacher, a principal, and the class of students supply the ratings in varying combinations. No overall score is computed but, instead, means for each of the twenty competencies are determined and a profile across all areas results. The instrument purports to measure generic competencies of all teachers, in all subjects, at all levels.

The Classroom Observation Scale (COBS) is also included in the Appendix. This instrument was designed to measure specific competencies needed by special education teachers. There are 31 items which are to be rated by a data collector on a scale from 1 (low) to 5 (high). Information is gathered through a one-hour observation in class followed by a teacher interview for supplementary information. As with the BTAI, no overall score is projected but rather a profile is produced.

STATEMENT OF THE RESEARCH QUESTIONS

In order to develop a performance-based competency assessment instrument the foregoing problematic concerns may be restated as research questions. If answers can be appropriately derived, the outcome will either be the validation of such an instrument or else where not to look for one. Using Cronbach's (1970) description of validity a rather complete study in special education teacher competency is suggested. A test of construct validity will indicate the existence of the competencies in their identification. A test of concurrent validity will show the potential measuring levels of competence. A test of content validity will decide if the appropriate methodology was used. While there is considerable overlap in purpose and outcome these separations are made for accuracy rather than simplicity.

Identifying Special Education Teacher Competencies

From the many behaviors special education teachers might demonstrate in the classrooms which ones are important? Many lists have been put together with that purpose in mind. Public Law 94-142 (Federal Register, 1977) requires qualified special education teachers to meet state educational agency approved certification requirements. The state of Georgia is considering one of two instruments to meet those requirements. The question is refined in scope to consider the application of these two instruments (BTAI and COBS) as the assessment methods of special education teacher competence. Do the items of one or the other better discriminate among a sample of special education teachers in Georgia according to a criteria of currently acceptable procedures?

An important qualification has been made in stating "currently acceptable procedures." Special education teachers might be ranked by the color of their hair from light to dark. One could easily devise a five-point scale of hair color from white (1), through blond, red, brown, to black (5). Accurate measures might also be made of every teacher and a cutoff rating point of acceptability chosen. However, some external criteria must be placed on this item's inclusion in a competency assessment instrument. Research may show hair color to be related to effective teaching and practitioners may have found it useful in the accomplishment of their

jobs; yet if competent and incompetent teachers cannot be described by it, hair color should not be included in the chosen instrument. The determination of a competent and incompetent teacher must be made independently and with the consideration of all things needed and demonstrated. Because criteria for competence may change with time, the best standard would be one which acknowledges its temporal state subject to future revisions. Without going into a lengthy discussion of values, currently acceptable criteria will refer to consensual agreement of society or what most of the public would say.

Two constructs have been identified - BTAI and COBS. Each purports to have identified teaching competencies pertinent to special education teachers in the performance of their tasks. Experimentally each instrument's construct validity may be tested in comparison to an external criteria source.

$$H_o: \text{BTAI} = \text{COBS} = \text{Criteria}$$

In order to be complete, this question must be analyzed not only by overall assessment of the instruments but as well by individual competencies and specific items and indicators within each. Accordingly it will be possible after analysis to create a new instrument using only those items and competencies which do meet criteria. A new construct may be created which will meet criteria and provide means of assessing special education teacher competency.

Measuring Special Education Teacher Competencies

At what point can a teacher be called competent? Once a competency has been identified teachers will need to be assessed by it. Those who have it and those who do not, or more realistically, how much of it does a particular teacher need to demonstrate, must be determined. Using the same example of hair color above purely for illustration, it may be established that having darker hair is an important competency in teaching special education. If such a competence (the reader is asked to make the mental jump from a behavior to a characteristic) is to be useful, the point of hair darkness to be reached for adequate effect must be noted. That point should describe when a teacher is called more dark-haired than light-haired. If, for example red hair was considered light but brown was dark, that distinction is the rating level to meet.

Concurrent validity of competencies would require each to agree with another measure of acceptable competency in deciding how much is to be demonstrated. As one measure of an external criteria, a principal might evaluate and rank a group of five teachers by his independent opinion of competency. It happens that each teacher has a different color of hair and that he coincidentaly finds the two with white and blonde hair to be incompetent. He may further find the redhead and brunette to be adequately competent but the one with black hair to meet his expectation. If such a result was produced time after time in replication experiments so that the coincidence became not mere chance but a predictable occurance, concurrent validity might be established.

In this example the point between blond and red hair would describe minimal competence. Another point could be identified called proficiency. Here the principals accepted the redheads and brunettes but expected to obtain the level of competence demonstrated by the one with black hair. (At this point the analogy may sound ridiculous but the remedy of hair dye could be seen as a simple prescription for staff development.)

By examining the ratings made on each competency an important implication can be seen. Some instrument measures of competency may be found to have direct relationships to demonstrated competency. That is, both external criteria and competency item rank the teachers the same way. Other items may be found to rank inversely and could be said to measure incompetence rather than competence. Two other types of relationships may result that could increase our knowledge of competence. Even though darkness of hair was an identified measure of competency in the construct validation study, it may turn out that its measurement indicators were not adequate for our needs. It may be that white and black hair were definitely different but that since most teachers fell somewhere between and these gradations were not clearly seen, little agreement could be reached by external criteria measures as to where that point really lies. Those with brown hair, for example, were often split equally as to minimal competency and no one point could be distinguished. In this case the competency idea is acceptable but not the particular measure of that competency. The other type of relationship between competency items and criteria measure may show a polarizing effect. It may be that black hair is preferred to white hair but that the real preference is for brown

hair. Such a relationship shows the acceptance of one extreme more often than the other, but that a middle point is preferred to either end of the scale. In this case as well, the competency idea may be important but cannot, as described, meet concurrent validity criteria.

Selecting Special Education Teacher Competencies

The question is asked if all teachers have certain competency requirements in common. Are special education teachers operating under the same general expectations of behaviors that all other teachers are held to even though their teaching tasks and situations may differ? Perhaps special education teachers need to be more competent at the skill of individualizing instruction while less so at writing lesson plans for units of study. Although this proposal deals with one area of teaching specialization, the findings have implications for all other specific subjects such as music, physical education, typing, etc. An appropriate line of inquiry, then, would be to ask if the content in a competency assessment instrument discriminates between special and non-special education teachers.

If a set of generic competencies are truly useful across all disciplines and specialized teaching areas, there should be no significant differences in the results obtained from a special education and a non-special education population. According to these generic competency items, the null hypothesis might read:

H_o: Special Education Teachers = Non-Special Education Teachers

If differences were found, however, one must suspect that the two populations were different. If, indeed, that were the case one competency test of two different types of teachers would hardly be acceptable. Rather than reject an entire list, this study will go further to identify which competencies do measure both special and non-special education teachers. While rejecting many items is the expectation, those competencies which do pass such a test can be included in an assessment instrument for all teachers.

Traditional tests of content validation usually entail the survey of expert opinion in the field. Elaborate procedures to learn if the instrument measures what it is supposed to have been detailed (ETS, 1978). In this study the proposed competency assessment instrument (BTAI, in Appendix) was created from lists of over 750 generic teaching competencies. Content validity was established by ratings of a

30-member panel of experts. Further verification was made through a state-wide survey of over 1500 teachers in Georgia. Although special education teachers were included in both the expert panel and the practicing teachers, their particular opinion may have been diluted by the majority voice of all the others. The weaknesses previously cited about teacher perspectives of what is or is not important raise further questions about content validation through surveys. It is the position of this study that a greater test of content validity might be made through field demonstration rather than opinion alone. The term "generic" competency may be valid if this instrument can be applied to special and non-special education teachers with equanimity.

Following this procedure a final question is addressed: What are the differences in competencies among special and non-special education teachers? Although limited in consideration to one list of generic competencies, the answer may give good indications for further study of teachers in general or teachers specific, especially in special education.

DESIGN OF THE STUDIES

STUDY I. Measuring Special Education Teacher Competencies

In order to determine which competencies are the most useful for application with special education teachers an independent rating of each teacher must be made. After more and less competent teachers are identified a useful competency item will be one that discriminates similarly. The independent ranking of the teachers becomes the critical element for validating the competencies.

The decision was made that if contemporary standards of quality in teaching were to be reflected, the status quo would serve as a relatively fair measure. That is, we might hope to have ideal teachers and may approach such a level in the future but ideal must be measured only by today's standards. The assessment instrument is not to be used so much to improve or limit the number of teachers entering the profession but rather to measure the current teacher population. Given a measuring stick of current values, the concern turns to which characteristics are to be measured in determining the more and less competent special education teachers. If we construct the parameters of our acceptable levels of competence, we limit the independence of our discrimination and the holistic perspective of what is good teaching. If, for example, their students' gain scores on achievement tests were the only criteria to consider in discriminating among teachers, any other important feature of teaching would be lost. Consequently, no limit can be placed on what is to be considered the criteria for competent teachers - only that both more and less competent teachers do exist today. Such current yet holistic decisions of who is competent must rest with expert opinion.

Current criteria standards may be found among those who control entry into the teaching profession. A panel of six judges was selected to rank order the teachers. These judges were known to their peers as experts and are practicing decision-makers in evaluating teachers. So that a secondary level of analysis might be undertaken if necessary, three judges were selected who work in special education and three who work as generalists. Specifically they hold positions of a special education director, a principal, a personnel director, a state certification consultant in special education, a university methods professor and a student teacher supervisor in special education. They were asked to observe the sample of

teachers in the classroom and then to sort them into one of three groups on the basis of demonstrated competence. The three groups were defined as (a) those they would "hire," (b) those they would keep as "alternates," and (c) those they would "not hire." After this Q-sort the experts went back to each group and rank ordered them. No criteria was established by the experimenters for their decisions but they were asked to note why they placed each particular teacher in that group. It is important to note that this selection process is based on performance observations and nothing else. The judges were given no cues about a teacher's educational background or experience. Brief information was given describing the type of classroom (self-contained, resource, or itinerant), the handicap classification (EMR, BD, LD, etc), the number of students in class, and whether or not an aide was present. (See Figure 1)

For this study, a volunteer sample of 65 special education teachers in eleven contiguous school districts in Georgia was recruited. This voluntary sample is not representative of all special education teachers but does represent eight areas of specialization within the field: Trainable Mentally Retarded (TMR), Learning Disabilities (LD), Behavior Disorders (BD), General Learning Disabilities (GLD), Visually Impaired (VI), Emotionally Mentally Retarded (EMR), Hearing Impaired (HI) and Speech Pathology (SP). The sample is also a divisable group of one-half beginning (0 to 3 years) and one-half experienced (4 or more years) teachers.

The sample teachers were observed by teams of two data collectors and were video taped for the expert Q-sort simultaneously. One data collector used the BTAI instrument and the other data collector used the COBS instrument. The data collectors had been trained previously to reliable standards and every tenth teacher observation was rated twice for interrater reliability. Since the expert panel could not be expected to observe every teacher over the three month data collection period, video tape recordings were made for them to view at one time. The problem of retention in keeping all 65 teachers in mind for the judges Q-sort was resolved by editing the tapes to six minutes in length. Editing procedures required representative time for each activity, all cataclysmic events shown, and repetitive activities depicted at the beginning and end of each sequence. The reliability of the information contained in the tapes as an accurate picture of the actual observation was established by using the two competency instruments on the edited tape alone and, comparing the ratings to the actual scores. Reliability between

The Expert Panel

	Generalist	Specialist
Local System	Principal	Special Education Director
Central Administration	Personnel Director	SDE Special Education Official
University	Methods Professor	Special Education Student Teacher Supervisor

Figure 1

actual tapes and their abbreviated editions established, a concern for lost information perhaps important to the judges is raised. A choice had to be made between extending the judges rankings over two weeks time using actual tapes and losing discriminating retention, or else collapsing edited tapes into one day of judgements and obtaining better comparisons. The latter method was chosen.

The purpose of this study is to determine which competencies are important indicators of what the experts saw competent teachers exhibiting. There are a total of 100 items in both the SECT and BTEP instruments; some of these may be measuring the same thing while others, although worded similarly, may be quite different. The experts have ranked the teachers according to what they felt was important without knowing how well the teacher had been scored on the instruments. Those competencies which best characterize the same differences among the expert rankings of the teachers are the best discriminating predictors of competence among special education teachers.

In addition to the identification of items to be used as special education teacher competencies, an attempt has been made to establish a minimum acceptance level and a proficient level of competence. By definition minimum competence is the point a teacher must reach before being hired. In this study that point is the separation between the "alternate" and "not hire" groups. Proficiency is the point that divides the "hire" group from the "alternate" group. In other words, for each competency item, two values should be produced: the rating describing minimum competency and the rating describing proficiency.

Data Analysis

If teacher rankings by the experts were simply collapsed or a mean ranking derived for their position across all six judges, considerable information would be lost and possible misinterpretation of the data would result. For example, two teachers, Carol and Bob, are ranked by the six experts. Carol was placed in the "hire" group by two experts, "alternate" group by two, and "not hire" group by two. Her mean rank would be 2.0. Bob, on the other hand, was placed in the alternate group by all six experts for a mean also of 2.0. If these mean rankings were to be used as the basis of comparison against their observed ratings by competency items, a distortion of expert opinion is made since we know the experts did not agree on Carol's competence but did on Bob's.

One procedure for data analysis would avoid this loss of information. Each teacher ranking by all judges was kept intact when compared to instrument competency ratings. Every time a judge put a teacher into the "hire" category the corresponding competency item rating for that teacher went into the same cell. In Carol's case her ratings on competency X are entered twice on the "hire" cell, twice in the "alternate" cell, and twice in the "not hire" cell. Bob's rating on competency X was entered six times in the "alternate" cell, once for each judge. After all ratings were entered for each teacher by each judge, mean ratings on competency X are computed for the "hire," "alternate," and "not hire" groups. One-way analysis of variance using the three groups of teachers measured against each competency variable was computed and the resulting F statistic told which competencies could be measured with significant discrimination.

When possible, points for minimal competence and proficient ratings were designated. Since the instrument measures by integers (no fractions or decimals) the task of locating these cutoff points was straight forward. When a competency produced a significant F and sorted teachers in linear fashion (ranking high and rating high, ranking low and rating low), the integers between the mean scores became the competent and proficient level points. For example, on competency X the "hire" group mean might be 3.48, the "alternate" group mean might be 2.83, and the "not hire" group mean might be 1.17. The minimal competency point is 2 while proficiency is 3.

The BTAI instrument was designed with four data sources - a data collector, a peer teacher, a principal or supervisor, and the students. Further analysis was done to determine if an effect by data source would influence the results. In the case of student perceptions of teacher competency the question is raised whether or not special education students can accurately rate their teachers. For principals the concern may be for individually different standards of competency from school to school making statewide ratings incomparable. In order to resolve these potential differences each item was analyzed by its source before collapsing into mean competency ratings.

Results

A complete printout of the means of each competency item by each data source can be found in Appendix C, Data Table I. The means for each group of sorted teachers (hire, alternate, not hire) are followed by the one-way ANOVA F statistic and significance level. The twenty generic competencies of the BTEP instrument are included after each group of indicator items (numbered in reverse order XX to I).

Four types of relationships between the expert Q-sort as the criterion measure and the instruments' ratings of the teachers are possible.

Type A: If the indicator item rates the teacher the same way the experts sorted them (high with high, low with low) a useful competency has been validated by its construct. These items should be used.

Type B: If the indicator item rates the three groups of teachers without a difference in the variance of their means there is no discriminatory value. These items will not help but will not hurt a teacher since the attribute is apparently not part of perceived competence.

Type C: If the item peaks or dips in the middle when compared to the expert rankings, a preferred state of competency is not found at the expected pole. For example, too much warmth may be as undesirable as too little so that the group the experts chose might have only moderate warmth. These items would be rejected as poorly constructed measures.

Type D: If the indicator item rates the teachers inversely to the groupings made by the experts (high with low, low with high) a contrary measure would exist. An item such as this would be a poor measure of competence since the experts wanted exactly the opposite behavior. (In fact, by reversing the poles this item could be a Type A indicator.)

A total of 100 indicator items appear in the two instruments (BTAI 69, COBS 31). On many items, ratings are given by the trained data collector, principals, peer teachers, and students. These ratings are averaged together to form the twenty

competency measures. Considering each rating source as an independent data point, a grand total of 313 item means may be compared to the expert's Q-sort of teacher competence.

Of the 313 measures, 178 (57%) had means which increased according to the expert Q-sort groups (Type A). There were 20 (9%) measures that had the same means for each of the three groups (Type B). In 74 cases (24%), the means of the three groups were peaking or dipping in the middle (Type C). Finally, 32 times (10%) the means were found to decrease with the experts' opinion of demonstrated competency (Type D).

The Type A measures appear by their means alone to be potential items for further consideration. The Type B measures are not detrimental but neither are they helpful. It is enlightening to note that in all but two of these cases there was insufficient data on more than one-half of the teachers in the sample. The implication is that these items are seldom observed and even when they are, all teachers seem to receive the same rating. Type C measures would lead us to believe that a middle rating is more or less valued than either end of the continuum. Perhaps the groups do not significantly differ enough and are quite flat in distribution. If this is the case, these measures are actually the same as Type B.

Type D measures present one of the more interesting findings in this study. These items were intended to measure competency positively. According to the external criteria of the expert Q-sort, the Type D item means measured lack of competency - the higher the rating, the lower the ranking. It is curious that the source of these ratings were not equally distributed among the types of assessors. The data collectors had one Type D result, the peer teachers had 7, the principals had 10, and the students had 14. The data collectors' single Type D comparison could be attributed to a lack of sufficient data. For 41 of the 65 teachers the data collectors were unable to observe that particular item and the included data represents 37% of the sample. Of all the potential items to be used in rating, the peer teachers had 7% of theirs inverted and the principals had 14% of theirs inverted directionally. The students, however, had one-third of their ratings opposite the experts' rankings. Adding to this result is that 18 more times Type B and C items were found. This means that only 24% of the competency items answered by students were found to move directionally with the perceived teacher competence of the experts.

Another important aspect of an assessment instrument is its application - how often it can be used. An arbitrary, yet reasonable figure of 10% of the time was used to determine whether or not an item was observable. The assessment observations were one-hour long. Is it possible for teachers to vary their activities during the amount of time to demonstrate competency on every item? It was decided that if more than 10% of the observations were missing due to lack of applicability or unobservability the item would be reconsidered. Of the 293 data points (313 less the 20 competency means), there were 132 items which had more than 10% missing data. Only three items on the Professional Standards component (PS 2, 3, 4) met this criterion. In Teaching Plans and Materials there were four items which could not be measured 90% of the time by either the data collector, peer teacher, or principal (TPM 4, 8, 9, 10) and only the principals were able to observe one more (TPM 11) 90% of the time. Interpersonal skills had similar difficulties on four items (IS 8, 10, 11, 12). The Classroom Procedures component could not be observed 90% of the time by at least two of the four data sources on 9 items (CP 1, 7, 20, 22, 23, 24 28, 29, 30). In the COBS instrument there were six items not meeting the criterion (COBS 3, 8, 14, 15, 21, 24). Among the 65 classrooms observed, it was mutually agreed by teacher and data collector in a pre-observation conference that the instrument could not be successfully completed by the students due to their handicaps in 28 classrooms (43%). Therefore, the results used above for student perceptions entailed a sample of only 37 teachers.

The 20 competency ratings in the BTAI are determined by computing means of all the items and their data sources. If there are four items that form a competency and if the data collector, peer teacher, and principal each rate a teacher on each item, the competency mean for that teacher would be the sum total of the ratings divided by twelve. If one of the data sources cannot observe a particular item and rates it "not applicable," the total is divided by eleven instead of twelve. Since this is the procedure instructed by the instrument, competency means were determined in this manner.*

*A potential problem is noted here for future implementation. The determination of competency means assumes every indicator item to be equally valuable. The results of this study indicate that some items are better than others. If true, the

determination of competency means will vary with which items are computed. The example below illustrates the point.

Data Source Rating

	Data Collector	Peer Teacher	Principal	Competency Z Mean
Indicator Item A	[5]	[3]	[1]	
Indicator Item B	[5]	[3]	[1]	
Indicator Item C	[5]	[3]	[1]	[3.0]
Indicator Item D	[5]	[3]	[1]	

In this example the teacher would be rated 3.0 on competency Z. If, however, the principal were unable to observe the last two indicator items, the mean would be computed on only ten data points.

Data Source Rating

	Data Collector	Peer Teacher	Principal	Competency Z Mean
Indicator Item A	[5]	[3]	[1]	
Indicator Item B	[5]	[3]	[1]	
Indicator Item C	[5]	[3]	N/A	[3.4]
Indicator Item D	[5]	[3]	N/A	

In this case items A and B are weighted more heavily than items C and D in the determination of a competency mean. If each item is to be of equal weight in the competency, an alternate method is suggested here.

Data Source Rating

	Data Collector	Peer Teacher	Principal	Item Mean	Competency Z Mean
Indicator Item A	[5]	[3]	[1]	3	
Indicator Item B	[5]	[3]	[1]	3	
Indicator Item C	[5]	[3]	N/A	2	[3.5]
Indicator Item D	[5]	[3]	N/A	2	

The competency mean is computed from the mean of each indicator item. In such a manner each item is still weighted for its percentage of the competency mean.

One-way analysis of variance (ANOVA) was used to determine if the mean competency ratings were related to the expert's opinion of demonstrated competency. Even if the competency means differed in each group it must be decided if this difference was due only to chance. The ANOVA procedure produced an F statistic and significance level which indicates whether or not each competency was discriminating according to the expert sorting. Since the competencies are means of many data points there were no missing cases to report.

Of the twenty competencies, six were not able to discriminate among teachers according to the experts' opinion of competency (BTEP VI, IV, XII, III, II, I). Three of these competencies cover the entire Professional Standards component. It appears that the ratings given on professional standards have no relationship to the experts' perceptions of competence. Two of the competencies encompass five items from the Teaching Plans and Materials component (TPM 8, 9, 10, 13, 14). In the next section it will be shown that these indicator items would not discriminate well by competency. It therefore follows that the competency itself is not a useful measure. The last competency resulting in no discrimination was comprised of four indicator items from the Classroom Procedures component (CP 24, 25, 26, 27). It is possible to have only a small part of the variance explained by a particular item but still have a discriminating overall measure when several such items are put together. In this case two of the items had significant discrimination by the data collector. However, the principals reversed the discriminating effect significantly on one of these and the peer teachers, students, and principals had no positive effect on the other three. The result seems to be that the significant differences detected by the data collectors are washed out by the principal, students and peer teacher when the competency mean is computed.

Each indicator item was tested also by a one-way analysis of variance to determine its discriminating potential. The differences in group means may be different and even indicate a positive directional relationship. However, those differences may be due only to chance and may not indicate an area of discrimination. The valid items should show significant differences between the three sorted groups. A one-way analysis of variance for each item by each data source produced an F statistic. The F value can be tested for significance, in this case established at $p<.05$, and those items found to discriminate significantly could be included in a special education competency assessment instrument.

Of the 313 items, 168 produced significant F tests. In other words, in 168 cases there was a difference not due to chance between at least two of the three groups sorted by the experts. As previously noted, it was decided that useful items would be observable 90% of the time. By including many items which were rated on only a few teachers, the efficiency of the F test would be greatly diminished. There were 74 significant indicator items which could meet the 90% standard.

Since the ANOVA procedure tests differences only, not direction, those items whose means were inversely ordered to the experts' rankings (high rating with low ranking, etc.) need special attention. Four of these 74 indicators were reverse order items. Consistent with the above results, students were responsible for three (SP 4, 6, 12) and principals for one (CP 26). All of the others were positively related (higher means with "hire" group, middle means with "alternate" group, lower means with "not hire" group). Many items could discriminate by several assessment sources. It was only the students who could not produce even one significant F test moving in the positive direction.

Four items were significantly discriminating by data collector, peer teacher and principal ratings (TPM 2; CP 13, IS 2 and 6). The data collector and peer teacher could discriminate on ten additional items (TPM 3, 5, 12; CP 4, 9, 14, 17, 18, 19; IS 4). The data collector and principal could discriminate on two more items (IS 1 and 5). The principal and peer teacher had no similar results except for the first four mentioned. The principal alone found one item (IS 11) significantly differing by group means. The peer teacher alone added an additional seven items (TPM 1; CP 2, 5, 15; IS 3, 9; PS 3). The data collector was the best discriminator of all data sources. In addition to those items above, the data collector could use 8 BTEP items (TPM 6, 7; CP 6, 12, 16, 21, 26, 27) and, as the only assessment source 18 COBS items (COBS 1, 2, 4, 5, 6, 7, 11, 12, 13, 16, 17, 18, 20, 22, 26, 27, 28, 30).

It had been assumed that once the indicator items and competencies were found to be significantly discriminating, most of them would also allow clear cut divisions between each group of sorted teachers. In a five point scale, for example, an indicator item might show the "hire" group of teachers to average around 4.0, the "alternate" group around 3.0, and the "not hire" group around 2.0. If the means differed significantly between groups, minimal competence and proficient points could be prescribed for diagnostic purposes. Only four items of all 313 possibilities

had a difference across all three group means equal to or greater than 1.0. All four items were ratings from the data collectors. Item CP I had means of 4.3, 3.1, and 2.2 but 43% of the sample cases had been rated unobservable. Item IS II had means of 4.2, 3.2, and 1.9 but this time 86% were missing cases. In both these instances it appears that "hire" and "alternate" groups were very similar but that the "not hire" group was clearly differentiated. The large number of missing cases may have contributed to this difference. CP I rates "operates AV and other equipment" and IS II rates "manages disruptions objectively." It is obvious that in many lessons no AV equipment is used and that disruptions may not occur when the data collector is present. It may follow that in low frequency activities and behaviors, their sudden appearance might tend to push ratings to either extreme. Without a balance of moderating cases from the majority the data become skewed. The other two items with ranges of the three means above 1.0 were COBS 6 and 21. COBS 6 dealing with equity or the fair and equal treatment of all children had means of 4.0, 3.7, and 2.8 with only 5% missing observations. COBS II concerned individualized evaluation by accepting student responses without belittling and had means of 4.1, 3.7 and 3.0 with 12% missing observations.

Although the last two items come closer to expectations, none of the four can make clear cut division points between groups. Since the ratings for an individual teacher must be an integer 1 through 5, it appears that only COBS 6 could describe minimal competence with a score of three or higher. The immediate problem, then, is that minimum competency and proficiency points cannot be described. The larger problem, however, is that if these points cannot be assigned a measurable value (e.g., minimum 2, proficient 3) the usefulness of the instrument is questioned.

SPECIAL STUDIES

Special Study 1A: Comparisons by Demographic Data

If competency assessment instruments are to be implemented as one of the measures of teacher certification, it will be important to insure against a bias based on invidious discrimination. Demographic information was collected from the 65-teacher sample in four areas which are potential sources of such biases. Age, sex, race, and socio-economic status (SES) of the school population were computed for all observations.

Age is an important factor in such an assessment. A teacher's age might be related to experience and that could imply a screening process that allows only more competent teachers to continue in the profession. However, many teachers enter the field at later ages and they should not be discriminated against due to a time effect. Consequently, the valid instrument would not show a difference in average ratings according to age.

The teachers were grouped into three age categories: 21-25 (N=19), 26-29 (N = 26), and 30-47 (N=20). The average rating on all competencies for each component was computed and collapsed into four groups. Each component (TPM, CP, IS, PS, and COBS) was examined using a chi-square test of independent samples. No significant differences were found in any component. Age, therefore, does not seem to be a discriminating factor.

A further examination revealed that the expert panel made no distinction by age. The teachers were sorted into three categories by the experts and compared with the three age groups again using a chi-square analysis. No significant differences were found among these groups either. Evidently age is not what good teachers are about - either by instrument or experts.

Sex was a difficult attribute to measure in this sample. Of the 65 teachers only four were male (6.2%). This figure is not inconsistent with state approximations of male and female special education teachers. A visual inspection of the data on the following page indicates that no significant relationships exist between sex of the teacher and the rating received on any of the components.

Table 1

Sex / ATINGS	TPM M	TPM F	CP M	CP F	IS M	IS F	PS M	PS F	COBS M	COBS F
Lo	3	28	2	18	1	10	3	12	1	23
Hi	1	33	2	43	3	51	1	49	3	38

In special education it cannot be expected that the sex ratio among teachers will change. Therefore, the next best consideration to be made is whether or not the few males involved will be rated with some degree of critical observation and still not lumped into a high or low category only. Clearly, the data above illustrates that case.

The expert Q-sort resulted in similar findings. Taking each of the six judges rankings of the teachers as independent observations, a chi-square test of independence demonstrates the absence of a sex bias in their perceptions.

Table 2

Teachers	Hire	Alternate	Not Hire
Male	11	10	3
Female	167	111	88

390

$x^2 = 2.22$ with 2 df
$\alpha = .3296$

Race is currently perhaps the most important source of invidious comparisons in court tests. Of the 65 teachers, 9 were black. The same tests for significant differences were performed. The table below illustrates the results.

Table 3

Race / ATINGS	TPM B	TPM W	CP B	CP W	IS B	IS W	PS B	PS W	COBS B	COBS W
Lo	4	27	1	19	6	24	7	41	4	20
Hi	5	29	8	37	3	32	2	11	5	36

No significant differences were found in any of the components. That is to say, the teacher's race was not related to their overall rating on any one component of the instruments.

One disturbing relationship was noted by the expert Q-sort and race.

Table 4

	Hire	Alternate	Not Hire
Black	17	16	21
White	161	105	70

$x^2 = 9.29$ with 2 df
$\alpha = .0096$
Contingency Coefficient = .152

Although a question of independent observations can be raised because individual judge's rankings were used, the relationship appears to exist. A contingency coefficient was computed to measure the strength of the relationship but was found to be very weak (C = .052). The concern for a clarification through replication with a larger sample is suggested because of these results.

Finally, socio-economic status was examined to see if a particular school's wealth or lack of it had influenced the results. SES was computed for each school by multiplying the number of free lunches provided by two, adding the number of reduced lunches, and dividing the sum by the school population. This information was obtainable from only 51 of the 65 schools represented. The following comparisons by instrument components were then made. (High SES means a low figure for free and reduced lunches).

Table 5

	TPM		CP		IS		PS		COBS	
SES / RATINGS	Lo	Hi	Lo	Hi	Lo	Hi	Lo	Hi	Lo	Hi
Lo	13	12	8	9	3	5	3	6	9	10
Hi	9	17	14	20	19	24	18	21	13	19

None of the components produced significant chi-squares to find discriminating differences by SES. The expert panel also demonstrated no effect due to SES in

their sort of competence through employment standards. The conclusion, therefore, is reached that neither instrument nor expert panel used socio-economic status as a determiner of high or low ratings.

Special Study IB: Competency Assessment Stability

Another concern of the State Department of Education has been the stability of the assessment measure on each teacher over time. The question for implementation is how many times a teacher must meet criterion level before being called competent. One possible approach would call for each competency to be successfully demonstrated at least two or three times. Another plan expects the teacher to meet criteria only once but simultaneously on all competencies. The variations of these plans are numerous. A fundamental question is pertinent to further research before the decision is made: How stable is the demonstration of competency over two different observation times?

One half of the teacher sample (N=33) was used for this test. Each of these teachers was observed during the winter and again two months later during the spring. These teachers were compared on the Classroom Procedures (CP) ratings, Interpersonal Skills (IS) ratings, and Classroom Observation Scale (COBS) ratings. (The three non-observational components of the BTAI instrument - TPM, PS, and SP - were omitted from the second classroom visit. Due to increased efficiency, the second observation period was shortened to 15 minutes.) Using only the reliably-trained data collectors' scores for control, the discrepancies on each measure were computed. Significant differences were determined by the Kolmogorov-Smirnov two-sample test of independence. Compared to the t test, Kolmogorov-Smirnov has a high power-efficiency for small samples ($N < 40$) according to Dixon (1954). Siegel (1956) finds the Kolmogorov-Smirnov test to be more powerful in all cases than the x^2 test. The following table gives the results of the compared ratings.

The results indicate that seldom do the first and second observations agree in any of these measures. The slight improvement of IS over CP can be explained by the nature of the activity. CP is a measure of classroom procedures which could easily vary from day to day due to the learning activity. COBS is a combination of the two and appears to be superior to both although it was found to be stable in only 27% of the cases.

TABLE 6

Competency Assessment Stability: Kolmogorov-Smirnov two-tailed test of winter and spring ratings on CP, IS and COBS measures.

Teacher #	CP (.05 sig. ≤ 11)*	IS (.05 sig. ≤ 7)*	COBS (.05 sig. ≤ 11)*
1	15	14	50
2	56	20	11*
3	50	8	32
4	56	22	37
5	66	24	36
6	33	15	11*
7	50	6*	9*
8	69	30	15
9	55	33	15
10	54	25	53
11	106	39	92
12	77	27	19
13	45	41	14
14	54	14	5*
15	88	35	40
16	42	17	42
17	74	34	38
18	55	36	17
19	34	3*	48
20	86	35	19
21	40	23	43
22	54	16	53
23	38	12	32
24	16	20	8*
25	28	3*	39
26	36	20	11*
27	12	10	38
28	12	7*	9*
29	17	5*	45
30	14	8	22
31	28	9	29
32	15	11	11*
33	33	67	7*
TOTAL SIMILAR	0	5	9

A key to the problem of stable performances may be found in the previous study using the expert Q-sort. As seen from Table 6, teachers #7 and #28 were rated similarly on IS and COBS in both observations. These two teachers were also ranked at extreme ends of the experts' Q-sort (#7 very high and #28 very low). Since these were the only two who came close to demonstrating stable competency, a halo effect is suggested. If a teacher is being rated extremely high or low the consistency may carry over to all items. The other teachers who did remain consistent on at least one measure represented an even distribution of all types in the expert Q-sort.

Due to these findings, a recommendation is made that once observed and found qualified on a particular competency, a teacher should be accorded such demonstration of skill. Assuming it is the nature of a particular classroom activity that causes the discrepance, none of these competencies will measure different observations with similar degrees of comparison. For example, therefore, a teacher might at first successfully demonstrate competencies a, c, and e while b, d, and f do not meet criteria. During subsequent observations, competencies b, d, and f could be achieved even though a, c, and e might fall below standard. The entire list of competencies might be successfully demonstrated totally as a summation over several observations. This concept is consistent with the philosophy behind performance-based competency assessment. The assessment, as a single moment in a teacher's day, month, or year, only shows that he or she can do it - not that he or she always does it. However, being able to do so is a considerable step toward always doing it.

Special Study IC: Comparison of Teaching Area Within Special Education

The Special Education Competencies for Teachers Project began by asking if special education teachers were too unique to be assessed by generic competencies for all teachers. Other teaching areas such as music, typing, and physical education had similar concerns. By nature of their specific teaching assignments perhaps a generic competency assessment instrument would discriminate against them.

In this section of the study a probe was made into the specific area of teaching assignment. Eight types of assignments were represented in the special education

sample: 3 trainable mentally retarded (TMR), 13 educable mentally retarded (EMR), 5 learning disabilities and specific learning disabilities (LD and SLD), 17 behavior disorders (BD), 9 speech and language pathologists (SLP), 9 hearing impaired (HI), 3 visually impaired (VI), and 6 assorted assignments including interrelated, early childhood, and general learning disabilities (GLD). If special education teachers were to differ from all other teachers, it might follow that areas of special education differ from each other.

Table 7

Special Study IC: chi-square analysis of teaching assignment by each expert in Q-sort. (H = hire, A = alternate, N = not hire)

Expert Q-Sort

	H	A	N	
TMR	9	7	2	18
EMR	26	27	25	78
LD	16	9	5	30
BD	37	35	30	102
GLD	17	7	12	36
SLP	31	15	8	54
HI	29	19	6	54
VI	13	2	3	18
	178	121	91	390

x^2 = 28.52 with 14 df, = .012, contingency coefficient = .261

A chi square test of independence according to the experts' perception of teacher competence was performed across all eight assignment areas. Significant differences ($p < .05$) were found. The two most prevalent areas, EMR and BD, are quite different in purpose; the former is cognitively oriented while the latter is behaviorally directed. Once again the chi square test of independence showed

significant differences ($p < .05$) between the assignment and the experts' perceptions of teacher competence.

The next step was to determine if the instruments themselves rated the teachers significantly different by assignment. Statistical significance was calculated by a one-way analysis of variance on every item and competency mean by every assessment source (data collector, peer teacher, principal, and student). Of 313 individual tests, 49 indicated significant differences. Fourteen of these could be eliminated due to missing data when the number of observations fell below 90%. Approximately 7% of the TPM items discriminated by assignment while none of the PS items did. The CP items discriminated 12% of the time and four particular items (CP 9, 14, 16 and 19) had two or more data sources' ratings related to teacher assignment. In 19% of the IS items the teachers ratings differed according to their assignment. Two in particular (IS 2 and 5) had two or more data sources discriminating. The greatest discrimination came in the COBS instrument where 32% of the items discriminated by assignment.

The general conclusion is that within special education there is considerable variance in type of teaching activity or teaching style by particular assignment. The discrimination problem is more pronounced in observation components of the instruments. This seems to indicate the behaviorally oriented assignments will produce higher ratings among teachers. Since considerable cognitive teaching strategies will not be observed either diagnostically or prescriptively in the instruments, these assignment activities will be rated lower. Specifically, this would mean that a BD teacher on the CP or COBS items will rate higher than an EMR teacher. However, on the TPM or PS items they will receive similar ratings.

Special Study ID: Comparison of Special Education Teachers by Experience

The intent of the State Department of Education in Georgia is to use the final competency assessment instrument for the certification of beginning teachers. The plan calls for all teachers to satisfactorally demonstrate competence during their first three years of teaching. After such a performance they would be issued a renewable teaching certificate.

A question concerning the nature of a generic teaching competency has been raised. It is usually undisputed that a considerable amount of learning about how to

teach takes place in the first few years in the field rather than in the preparing institution. If experience, and consequently, time were the best teacher there might be little need for performance-based certification of staff development. All that would be needed was more time spent teaching. Renewable teaching certificates could be systematically distributed based on some normative scale of experience.

On the otherhand, if a teaching competency was truly a skill to learn or a capability to acquire regardless of longevity, there should be as many competent beginning teachers as there are experienced teachers. The effect of a diagnostic instrument able to measure competence should substantially change the composition of experienced teachers by showing greater competency.

The teacher sample was divided into two groups: beginning with 0-3 years experience (N = 33) and experinced with four or more years experience. These two groups were then compared on their ratings received for each item and competency in both the instruments by an analysis of variance. Out of the 313 tests only eight items or 2.6% showed any significant difference ($p < .05$). Of these eight, six had problems with missing data (less than 90% observable) leaving only two items (CP 10 and 19 from the peer teacher's ratings) with statistical significance. Every BTAI competency and COBS item appeared unbiased by experience.

These data appear even more remarkable when compared to the number of items which do discriminate by the experts perception of competence. If experience makes no difference but the items and the experts can discriminate among teachers on competence there may well be something to be taught about teaching. Staff development may not only be good for new teachers but the old ones as well.

An interesting point may be appropriate here. What if teachers are born - not made? If the skills required to be a competent teacher are not learened but, instead, inherited personality characteristics, would it be fair to deprive a teacher of a career that had been five or more years in preparation because he or she could not be taught to teach? For example, let us assume warmth is a necessary competency for successful teaching and further assume that one is either born warm or not warm but cannot learn to be warm. A teacher might spend four years in undergraduate school and one more year in graduate school (one does not need to

be warm to go to school). This teacher may even find a teaching job and spend the first three years being assessed but never successfully demonstrating the warmth competency. Would it be fair to finally exclude this teacher from the profession in the eighth year to start all over in preparation for a new occupation?

But is it fair to the hundreds of children this teacher might otherwise reach with less than competent instruction? The villain in this example is not the competency but rather when it was assessed. If warmth were indeed a necessary competency and if it could not be acquired, such a characteristic should be diagnosed early in undergraduate education and the less warm could be counseled into other professions.

There may be no such unteachable competencies as illustrated above. If they do exist, and these data analyses do not preclude such, it will be important to study which competencies can be taught, for which to train and for which to screen.

Special Study IE: Special vs. Non-Special Education Experts

The question may be asked whether or not the expert panel sorted the teachers differently according to their own background. Three of the experts were in special education - the special education director, the state special education consultant, and the special education student teacher supervisor. The other three experts might be called generalists - the principal, the personnel director, and the university methods professor. Could it be that special education experts are chiefly responsible for those items found to discriminate because of their additional insight?

The expert panel was selected to provide diversity and encompass a broad range of gatekeeper positions affecting teacher employment. The proposed instruments are designed to effectively measure special education teachers' competence. Depending upon the management system, one or more of these six positions may have a greater say in the eventual employment of a special education teacher. In the previous study, significant F tests were reported across all experts. The question here will be to determine how often the special education and non-special education expert sub-groups would concur with the overall panel opinion in their sort of the teachers.

The sample teachers were ranked according to how many experts put them into one of the three categories. The teachers were given one point for the "hire" category, two points for the "alternate" category, and three points for the "not hire" category. A total score of 3 or 4 was coded as the top group, 5 through 7 points as the middle group, and 8 or 9 points as the bottom group. The question of agreement into competency groups by each instrument competency was considered more important than a simple agreement among panel members. Consequently, a one-way analysis of variance procedure produced F statistics for significance testing.

The following table illustrates where significant F tests resulted from the experts' Q-sort by all BTEP competencies and COBS items.

Table 8

One-way analysis of variance significance tests across competency items by the experts' Q-sort

BTEP COMPETENCY	SIGNIFICANT Fs All Experts	Sp. Ed. Experts	Non-Special Ed. Experts
XX			
XIX	*	N.S.	*
XVIII	*	N.S.	N.S.
XVII	*	N.S.	*
XVI	*	*	*
XV	*	*	*
XIV	*	*	*
XIII	*	*	N.S.
XII	N.S.	N.S.	N.S.
XI	*	*	*
X	*	*	*
IX	*	*	*
VIII	*	*	*
VII	*	*	*
VI	N.S.	N.S.	N.S.
V	*	*	N.S.
IV	N.S.	N.S.	N.S.
III	N.S.	N.S.	N.S.
II	N.S.	N.S.	N.S.
I	N.S.	N.S.	N.S.

COBS ITEM	SIGNIFICANT Fs All Experts	Sp. Ed. Experts	Non-Special Ed. Experts
1	*	*	N.S.
2	*	*	N.S.
3	*	*	N.S.
4	*	*	N.S.
5	*	*	N.S.
6	*	*	*
7	*	N.S.	N.S.
8	*	*	N.S.
9	N.S.	N.S.	N.S.
10	N.S.	N.S.	*
11	*	*	N.S.
12	*	*	*
13	*	*	N.S.
14	*	N.S.	*
15	*	N.S.	N.S.
16	*	*	N.S.
17	*	N.S.	N.S.
18	*	*	N.S.
19	*	*	*
20	*	*	N.S.
21	*	*	*
22	*	*	N.S.
23	N.S.	N.S.	N.S.
24	N.S.	N.S.	N.S.
25	N.S.	N.S.	N.S.
26	*	N.S.	N.S.
27	*	*	N.S.
28	*	*	N.S.
29	*	N.S.	N.S.
30	*	*	N.S.
31	N.S.	N.S.	N.S.

* Significant F ($p < .05$), N.S. = Not Significant

These data indicate remarkable similarity in the competencies that are significant discriminators for either group of experts. Of the ten BTEP competencies that each sub-group finds discriminating, eight were common. Two additional competencies (XIX and XIII) are apparently an additive measure requiring all experts' opinion in order to discriminate. The uniform lack of significant differences in six competencies (XII, VI, IV, III, II, I) by all experts, special education experts, and non-special education experts seems to indicate general and specific indiscriminating areas of the BTEP instrument. The general conclusion is that as a measure of generic competency, 70% of the BTEP instrument (14 out of 20 competencies) discriminates accurately among special education teachers.

The COBS instrument results in slightly different conclusions. This instrument was designed to measure specific competencies of special education teachers. Although 25 of the 31 items could discriminate significantly when all expert rankings were used, only 6 were discriminating by non-special education experts alone compared with 19 by the special education experts. This seems to indicate that special educators would find COBS a much more informative and, therefore, useful instrument in measuring a teacher's competence than non-special educators. It is encouraging to note that 5 of the 6 items in COBS found undiscriminating by all experts were also not significant for both sub-groups of experts.

Special Study IF: Identification of an Extreme Sample

Would it be possible to identify items from the two instruments which discriminated between the extremes in our sample population, thus giving us a brief critical assessment instrument that could be used to identify those extremes in a classroom situation? This could be of great value to a school or system, allowing it to identify those teachers most in need of assistance and those teachers most able to give that assistance either by example or by sharing their methods and philosophy. For research purposes these items could be used to identify a known sample of teachers with contrasting performances in identified competencies.

Step I: Identifying the extremes in our sample population.

1a. A computer list by teacher of those items on which teachers scored either 5 or 1 was developed.

1b. A computer list by item listing all those teachers scoring 5 (or 4 if no 5s) and those scoring 1 (or 2 if no 1s) was developed.

2. From list 1a, a preliminary list of teachers scoring 5 on 20 or more items, or 1 on 10 or more items was established. (The difference in the cutoff point for each end was determined by the relative number of occurrences of these scores).

3. Comparison of this preliminary list from part 2 with the results of the experts' rankings produced a final list of identified teacher extremes consistent with classroom observation and expert rankings. This list consisted of 7 teachers who scored 5 on 20 or more items and whom all the experts ranked in the top third, and 5 teachers who scored one on 10 or more items and whom all the experts ranked in the bottom third of their teacher rankings.

Table 9

Preliminary List

Teacher	Number of items on which the teacher obtained a score of 5
A	46
B	36
C	31
D	29
E	28
F	27
G	26
H	22
I	22
J	22
K	20

Table 10

Step I, 2

Teacher	Number of items on which the teacher obtained a score of 1
T	33
U	23
V	17
W	17
X	13
Y	12
Z	10

Table 11

Final List: Step I, 3

"High"	"Low"
A	T
B	V
D	W
F	X
I	Z
J	
K	

Step II: Identifying the items which discriminated significantly between these 7 "high scoring" teachers and these 5 "low scoring teachers."

It was decided that an item was significant if at least half of the identified sample of "high" and "low" scoring teachers scored in the appropriate high or low categories on that item, and there was at least one of each at each end. This was done by manually going through the Items List (Ib) and marking the occurrences of "high" and "low" teachers. A teacher occurrence on any item was not counted if that occurrence was in the opposite category, i.e., a "high" teacher scoring 1 or 2 on an item would not be counted as an occurrence

By this method the following list of 19 items from the combined BTAI and COBS classroom observation indicators was compiled. (The PS competencies were omitted because these were not observable items). Only the results of the Data Collectors' observations on each item and teacher were used for this study.

Results

The occurrence of item CP 1 in the above list at first seemed rather odd, compared with the nature of all the other items. It was suspected, however, from the general analysis of data that this item only scored at the extremes probably due to its low frequency of observation (unobservable, 43% of the time).

In the analysis of variance every item in the above list was found to be a significant discriminator of competency among special education teachers (see Appendix C, Data Table I).

Table 12

List of Significant Items: Step II

Code	Descriptor	Occurrence of "High" and "Low" Teachers High (N=7)	Low (N = 5)
TPM 5	Accounts for differences in capabilities of learners	4	3
TPM 7	Accounts for differences in rates of learning	2	4
CP 1	Operates AV and other equipment	3	3
CP 13	Provides opportunities for learners to participate	5	1
CS 4	Demonstrates warmth and friendliness	6	1
CS 5	Sensitive to needs and feelings	4	4
TPM 11	Identifies learners that need assistance	5	1
COBS 6	Equity	5	2
COBS 12	Positive reinforcement	6	1
COBS 13	Effectiveness of reinforcement	6	3
COBS 17	Individualized instruction	6	2
COBS 18	Monitoring learning	6	2
COBS 19	Guiding the work session	5	1
COBS 20	Pacing learning tasks	4	3
COBS 21	Individualized evaluation	7	2
COBS 26	Pacing communication	5	1
COBS 27	Clarity	6	1
COBS 28	Academic Feedback	6	3
COBS 30	Consistency of Message	6	2

It would seem probable that the above study has supplied a list of 18 performance items (excluding CPI) which could be used with special education teachers to determine a sample of extremes. It also seems probable that these extremes bear relevance to the sample's overall performance as special education teachers. This could have important application as stated in the introduction.

Study I and Special Studies: Discussion

In the BTAI, 14 out of the 20 competencies were concurrently validated against the expert panel's ranking of teachers. Of the six which did not meet criteria, three comprised the entire Professional Standards component. It is recommended that this portion of the BTAI be dropped for special education teachers. Two of the five competencies in the Teaching Plans and Materials component did not meet criteria. Evidently for special education teachers there is no measurable relationship between competency and these two areas of planning ("Obtaining information about needs and progress of learners" and "Obtaining information on effectiveness of instruction for revision"). Perhaps in special education these are comprehended so well that they are not written into lesson plans. The only Classroom Procedures competency that did not meet concurrent validity standards concerned the organization of time, space, materials, and equipment. For these last three competencies more research is advised. Of the 31 COBS items, 18 were found to be good concurrent measures of competence in special education teaching.

One important finding in Study I was the disparity of the Student Perceptions component in special education. According to the results, these students could almost be expected to rate teachers high if the experts had ranked them low and vice versa on almost every item. This study recommends that the Student Perceptions component be dropped in special education assessments. Principal ratings and peer teacher ratings provided some discrepance. Only the data collector appeared to agree often with the expert opinion and, therefore, is the preferred source of special education teacher assessments.

Five special studies offered heartening results. Age, sex, race, and socio-economic status appear to be inconsequential attributes of teachers as their competency is measured by any of the instruments' components. Stability of the ratings over time was present but severely limited in its test in this study. It cannot be determined from these data if the teacher changed, the activity simply changed, or the retest method was inadequate. Experience was not found to be a discriminating factor in the measure of special education teacher competency.

The particular teaching assignment area within special education did produce significant results. It appears that the instruments are measures of observable behavior and do best in such areas as behavior disorders and hearing, vision, or speech impaired classes. In more cognitively oriented classrooms such as learning disabilities or mentally retarded, the competency items will rate those teachers lower. The explanation may lie in the inability of the assessor to observe appropriate instructional techniques for specific learning problems. More research in this area is recommended.

A comparison of the two instruments, generic and specific, was made according to the background of the experts on the panel. Consistent with their developers' intentions, BTAI was generally concurrently valid with all experts but COBS was clearly more reflective of the special education experts. The conclusion then is that BTAI may be used for all teachers including those in special education but that COBS is an important addition in specifying competencies among this particular group of teachers.

Finally, 19 items were found in the BTAI and COBS which could be used to identify a known sample of teachers with contrasting competency performances. These items may prove to be useful in staff development programs and future research projects.

STUDY II: Identifying Special Education Teacher Competencies

The same teacher sample rating from the instruments and the expert panel rankings were used in Study I and Study II. Study I concerned itself with concurrent validation of items that would measure competency in the same way as the expert panel. Those items able to meet such criteria could be used to assess special education teachers' competency and make effective discriminations. Study II goes one step further in an attempt to identify from these items which ones would most nearly rate special education teachers as the expert panel did. In this sense the process is one of elimination for efficiency and identification of groups of items. Rather than concurrent validation, the process is construct validation - which items describe the competency of the special education teacher.

A concern may also be raised in Study I as to the independence of the expert rankings when used in an ANOVA procedure. Study II presents alternate methodology that will perhaps comfort the critic and provide additional support for the overall conclusions of this report.

Data Analysis

The statistical technique of discriminant analysis is designed to distinguish between/among two or more groups of cases. These "GROUPS," in the present instance are comprised of teachers rated "hire" (group 1), "alternate" (group 2), and "do not hire" (group 3), as outlined earlier.

To distinguish among the groups through the discriminant analysis technique, a collection of "discriminating variables" is selected which measures characteristics on which the GROUPS are expected to differ. Here, the discriminating variables were the items of the BTAI and COBS instruments.

In a simplified way, this procedure could be seen as a way of determining "which items (DISCRIMINATING VARIABLES) distinguish among the GROUPS in essentially the same pattern as does the current methodology (the expert panel of six represented those who presently serve the role in the current system) of selection (i.e., selection by expert).

Naturally, it would be desirable to develop an instrument which could be administered by a trained data collector and achieve the same selection outcome as would be achieved by employing six otherwise already-busy administrators. The purpose of this investigation was to determine if the instruments under study can meet such criteria.

The mathematical objective of discriminant analysis is to weigh and linearly combine the DISCRIMINATING VARIABLES in some fashion so that the GROUPS are forced to be as statistically distinct as possible. In simpler terms, what is desired is to "discriminate" among the GROUPS in the sense of being able to tell them apart on the basis of their respective DISCRIMINATING VARIABLE scores.

Weighing coefficients can be interpreted in a manner similar to that used in factor analysis or multiple regression and, accordingly, serve to identify the variables which contribute most to differentiating along the respective dimension. In terms of the present concern, the outcome of this study will be a list of those items which should be combined from the BTAI and COBS instruments to create a new, and stronger, instrument for assessing special education teacher competency.

When the goal of analysis is to select the most useful (i.e., discriminating power) variables, the STEPWISE procedure is used. In this approach, the second variable selected is the one which is the strongest single variable best able to improve the value of the discrimination criterion in combination with the first (strongest, individual) variable. Subsequent variables are similarly selected according to their ability to contribute to further discrimination.

Additional discussion of the discriminant analysis procedure will be deferred until a later point in this report, at which time the context will make their presentation more lucid than would be possible at this point by speaking in the abstract.

The discriminant analysis procedure employed here is the SPSS methodology (Nie, et al, 1970).

Discriminating Variables

Appendices A and B contain outlines of the BTAI and COBS instruments in the form that will be used throughout this study to reference various sections and items of

those instruments. The reader is encouraged to become familiar with that simplified organization.

In considering the acceptability of a test item's performance in a field test, it would seem only logical that the item be capable of obtaining information most of the time. (The question of the acceptability of that information by discrimination then would follow.)

In assessing the performance of the BTAI and COBS, a minimum criterion of "no more than ten percent missing data" was set. The rationale was that a "good" test item would not be sufficiently dependable for statewide application if it only could be counted on to generate data less than 90% of the time. Accordingly, those items tested were first subjected to this first criterion of less than 10% missing data. Table 13 shows the results of that evaluation. (With the exception of the PS test which is completed by peer teachers and principals, all data reported here is from the data collector's ratings. See discussion below.)

Table 13

The 90% Criterion

Test	No. Items w/≥ 90% Data Present	Total No. Items in Test	% of Test Yielding ≥ 90% Data
TPM	6	14	42.9%
CP	14	30	46.7
IS	5	12	41.7
PS (colleague)	2	13	15.4
PS (principal)	0	13	0.0
COBS	25	31	80.65

The range of percentages in the final column of the figure above testifies to the utility of the various instruments as designed. In cases where the ninety percent criterion severely affects the instrument (e.g., PS: principals = 0% data available) some reconsideration should be given to the utility of the measurement device, its practicality, and the effect its elimination from consideration has on the remainder of the battery.

In this analysis the data used was only from trained collectors. The findings in Study I indicate that the peer teacher is not quite as able to make reliably discriminating assessments. The principals' ratings and the students' perceptions have been shown to add a "noise" effect. At best they dilute the observations and may actually be reversing the assessments. Consequently, for Study II only information for data collectors was analyzed.

All subsequent steps in this study used only those items which met or exceeded the ninety percent criterion.

The discriminant analysis procedure requires (as a rule of thumb) that there be five subjects (CASES) -- teachers in the present instance -- for every DISCRIMINATING VARIABLE. Specifically, this means that since there are 65 teachers, there should be no more than 13 variables entered into the analysis (65÷ 5 = 13) at any one time. Having to meet this constraint presents the decision of how and where to segment the 100 variables into "bite-sized" pieces for the computer.

A number of items were eliminated due to insufficient data. Overall, only 52% of the 100 original items (see Appendix C, Data Table II) survived the application of the Ninety Percent Criterion (see Table 13 and Appendix) 80.65% of the COBS items remained after the criterion was applied; the BTAI, however, lost well over half of its items (see Appendix for the item reduction process described here).

The Appendix contains a grid of the final factors developed and the specific test items in those factors. Because the Discriminant Analysis is, at best at least partially a correlational statistic, the actual groupings of the items could be argued to be inconsequential to the ultimate outcome of the analyses. Items were grouped in their particular juxtaposition primarily in order to facilitate cross comparisons of roughly equivalent items on the BTAI and the COBS and interpretation of the final outcome. Table 14 shows the number and type of items in the final clustering.

Table 14

Item Analysis Groups

	Group	No. of Items
I.	The Teacher	9
II.	Planning and Individualization	8
III.	Verbal Interactions	14
IV.	Management	10
V.	Instructional Methods	11

Having established what the DISCRIMINATING VARIABLES of the discriminant analysis would be is only half of the preparation for conducting the analysis: the other half is the identification of the GROUPS.

Identifying Groups

Each of the six judges in the Expert Q-sort rated each of the 65 to-be-evaluated teachers on whom BTAI and COBS data were held (see Appendix for these raw rating data). The problem of reducing these six ratings is a potentially knotty one..

In Study I, the approach taken to reducing these data was somewhat different from the RB-6 Design (see Kirk, 1968) employed here. Accordingly, the method employed in this study is described briefly here.

> Judges' "hire" ratings were coded "1" when entered into computer storage; ratings of "alternate" were coded "2"; and "don't hire" was coded "3". The natural hierarchical parallel between the codes and their referents was utilized in recoding the three GROUPS: more specifically, "low" scores -- however added and accrued -- would automatically become "acceptable" (i.e., "hire"); "high" scores would be "unacceptable" on the opposite ("don't hire") end of the scale.
>
> If all six judges were to assign a rating of "1" -- the "best" rating possible -- the "score" the teacher would receive would be (6 x 1) "6".

On the other end of the continuum, the "worst" rating a rater could give would be "3" ("don't hire"); and with six judges, each voting "3", the total "score" for the teacher would be (6 x 3) 18.

The data which this method generates range, according to the example given above, from "6" (on the "hire" end) to "18" (on the "don't hire" end). The following increments were recoded into this system:

- o "Hire" 6 - 9 (Group 1)
- o "Alternate" 10 - 14 (Group 2)
- o "Don't Hire" 15 - 18 (Group 3)

Through this method the ratings of the six independent judges were combined into one, aggregate "score." Table 15 presents the rating categories as each of the six judges filled them.

Table 15

Distribution of
Expert (E) Q-Sort
Ratings (R)

	Frequency			Adjusted Percentage			Cummulative Percentage		
E \ R	1	2	3	1	2	3	1	2	3
1	26	23	16	40	35	25	40	75	100
2	34	22	9	52	34	14	52	86	100
3	19	21	25	29	32	38	29	62	100
4	37	19	9	57	29	14	57	86	100
5	22	21	22	34	32	34	34	66	100
6	40	15	10	62	23	15	62	85	100
MEAN	29.7	20.2	15.2	45.6	30.8	23.3	45.6	76.7	100

(Study I and Study II differ initially in how teachers were given their final rankings for data analysis. A comparison of this table and the totals found in Appendix C, Data Table Ia, show great similarity.)

The mean cummulative percentage at group 2 is 76.7: over three-quarters of the teachers are consumed by two of the three categories. In reality, however, almost all of the videotaped teachers were, in fact, employed in public schools (four were student teachers). Accordingly, one may question whether this finding is to be interpreted to mean that nearly 25% of the teachers should not have been hired at all in the first place!

Setting PRIORS

In the SPSS discriminant analysis procedure, the probabilities of group membership can be adjusted for prior knowledge of the actual distribution of CASES: this is controlled through the PRIORS specification. By following this keyword with the keyword SIZE, a Bayesian adjustment is made to the membership probabilities. The proportion of CASES falling into each GROUP is taken as the group's prior probability.

To interpret this adjustment in terms of the data at hand, Table 15 shows groups' 1, 2, and 3 adjusted percentages to be 45.6, 30.8, and 23.3, respectively: this distribution, when used as an indicator of prior probability of group membership will tend to "pull" GROUP designations in the direction of these actual distributions.

Setting FIN/FOUT: First Run

In the STEPWISE method (see section on "Statistical Methodology") a variable is eligible for selection only if it adds additional "centroid separation," or differentiability power to the discriminant function being developed through the STEPWISE discriminant analysis. The contribution of each potential item is measured with a partial F test.

On the first run of the program, FIN/FOUT (FOUT is the partial F beyond which a variable must not drop lest it be deleted at a step subsequent to the step on which it was added).

On the first run of this analysis, FIN/FOUT were set at 0.00 so that all variables would be entered. This, of course, resulted in discriminant functions which were very weak from the additional, "non-contributing" variables and their "noise" variance. Inferior discriminant functions notwithstanding, setting FIN/FOUT at

0.00 offers an opportunity to inspect all of the data before any variables of potential interest can have been deleted.

Following this initial run, the data were inspected and a cutoff criterion was established for setting FIN/FOUT. This was done on the basis of a number of interacting factors, the first of which was the omnibus F test (approximate F) of the Wilks' Lambda statistic generated at each step in the STEPWISE development.

The omnibus F test on the group centroids essentailly asks: "Do the variables in the equation at this step distinguish between at least two of the GROUPS?" Just as the analysis of variance does when comparing means, the omnibus F test on the groups centroids, here, tells only that there is (if significant) a statistical difference between at least two group centroids (a group centroid is essentially the mean of the means of the variables in the set).

To determine where among the GROUPS the significant difference(s) is(are), a multi-variate significance test on the GROUP centroids is conducted. (This is just as an analysis of variance might be followed up with a Newman-Keuls, Tukey, or Scheffe procedure to ascertain the exact location of the difference(s) contributing to the significance of the overall F test.)

The multi-variate test of significance on GROUP centroids is presented by SPSS in an F Matrix like this

	Group 1	Group 2
Group 2	F (1,2)	
Group 3	F (1,3)*	F (2,3)

which, in its three entries, compares GROUPS 1 and 2, 1 and 3, and 2 and 3 using three F values, F (1,2) F (1,3), and F (2,3) respectively. (Group 1, to re-state, is "hire"; Group 2 is "alternate"; and Group 3 is "don't hire.") In the example above, only the Group 1/Group 3 comparison was significant -- i.e., F (1,3). This means that the group of DISCRIMINATING VARIABLES in the example discriminated between "hire" and "don't hire" but that it could not make the differentiations between the more proximal GROUPS (1 and 2; 2 and 3).

In setting FIN/FOUT equal to 0.00 on the first run, it was possible to inspect all of the univariate F tests on single item means vis à vis the GROUPS; the omnibus F test of the Wilks' Lambda; and the multi-variate tests of significance delineating the ability of each step's variables to discrimiante among the various pairs of GROUP centroids.

The second run of the analysis employed new FIN/FOUT levels individually set for each of the five clusters of variables (see Appendix C, Data Table II). These new partial F levels were set by inspecting the FIN/FOUT = 0.00 (run 1) tables and determining which was the last step at which there occurred a significant increase in the function's ability to make the differentiation(s). The next step was to determine which differentiations were most important.

Assessing Prediction Results

Following the development of the discriminant function(s), the SPSS applies the function(s) to the data on which it was based. Inasmuch as the function is not perfect -- but rather a "best fit" linear approximation -- there are, of course, some prediction errors. The success of the function in predicting the actual data appears in a table at the end of each printout. An example is presented below.

Table 16

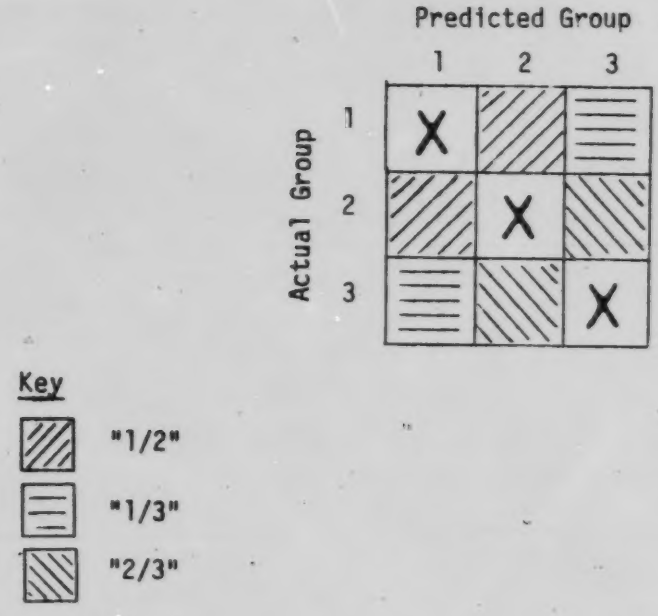
Step Number of Last Step with Significant Multi-Variate Test on Group 2/Group 3 Centroids

(number in parenthesis F-to-Enter at that step, for variable entered)

	ITEM CLUSTER				
	I	II	III	IV	V
Exp Sp Ed	7 (0.43337)	* (4.65729)	9 (0.44041)	9 (0.49056)	9 (1.28511)
Exp Non	6 (0.74948)	* (3.93498)	12 (0.22228)	5 (2.17821)	10 (0.13873)
$E_1 - E_6$	7 (0.33022)	2 (1.22090)	12 (0.56683)	8 (0.39670)	11 (0.03859)

*No significant Gp^2/Gp^3 discriminations (FIN/FOUT set greater than FIN @ Step 1)

Figure 2
Group Predictions



The major diagonal ("X's" in the example above) contains the cases which were perfectly classified; X(1/1) is the condition of an actual member of group 1 who was classified by the function as being a member of group 1. Off the major diagonal lie various types of inaccurate classificaitons. The discussion which follows outlines the rationale behind the "desirability" of certain types of misclassifications over others.

As in the example above, the "X's" represent perfect predictions (1/1, 2/2, 3/3). Confusions of group 1 and group 2 (or vice versa) are referred to as "1/2" predictions; minor diagonal predictions confusing groups 1 and 3 are "1/3" predictions; and the code "2/3" is used to reference group 2/group 3 confusions.

Figure 2 will be used as a reference in discussing the relative "merits" of various types of mis-classifications.

The 1/3 classification is totally unacceptable because a variable (or centroid) which is incapable of distinguishing between the ends of the range is unlikely to be of value in the intermediate, intra-group discriminations.

The 1/2 discrimination is not of great importance to the present research which, rather than being concerned with the discrimination of acceptable ("alternate") teachers from proficient teachers ("hire"), is more specifically concerned with the discrimination of "minimal competency" -- hence, the 2/3 discrimination is of most importance to the present problem.

Setting FIN/FOUT: Second Run

Having determined that the 2/3 discrimination is the critical ability which a DISCRIMINATING VARIABLE or GROUP centroid must possess, FIN/FOUT for the second run was set on the basis of determining the last step in the STEPWISE (FIN/FOUT = 0.00) procedure which produced a significant multivariate test on the group 2/group 3 centroids and setting the F-to-Enter, accordingly. Table 17 presents the step number and F-to-Enter value at that step.

Table 17 was used to establish FIN/FOUT for Run 2, where the F-to-Enter value was set just slightly lower than the last significant value shown in Table 16. Table 17 contains the FIN/FOUT values used for Run 2.

Table 17

FIN/FOUT: Run 2

	ITEM CLUSTER				
	I	II	III	IV	V
Exp Sp Ed	0.43336	4.65730	0.44040	0.49055	1.28510
Exp Non	0.74947	3.93499	0.22227	2.17820	0.13872
$E_1 - E_6$	0.33020	1.22089	0.56682	0.39669	0.03858

Results

Because of procedural constraints discussed earlier (see "Discriminating Variables") the fifty-two variables entered into analysis were clustered in five sets of variables

(see Appendix C, Data Table II); each cluster was analyzed separately. Moreover, these five runs were repeated three times each: once with all experts' (ALL) ratings defining the GROUPS; once using the ratings of Special Education experts only (ExpSpe); and a third time (ExpNon) using the ratings of the non-specialist experts. This entire data analysis process resulted in fifteen discriminant analysis runs in total (each of the five clusters for each of the three expert rating runs).

Some disagreement exists among statisticians regarding the proper method of interpreting the discriminant analysis. Two popular schools of thought currently argue for using the STEPWISE analysis steps and the rank order of standardized discriminant analysis coefficients respectively in selecting critical DISCRIMINATING VARIABLES. Both methods have been used here and are presented in juxtaposition. Tables 18, 19, and 20 present the results of both analysis methods for ALL expert raters, the Special Education Experts (ExpSpe), and the Generalist Experts (ExpNon), respectively. Tables 18, 19, and 20 are combined in Tables 21 and 22 which present the synthesized findings in the function analysis clusters (see Appendix C, Data Table II) and by source test, respectively.

Table 18

Discriminant Analysis Results: All Experts

	METHOD			
	STEPWISE		Rank Order of Coefficients	
	Step	Entry	Rank	Item
I	1	IS 5	1	IS 5
	2	COBS 2	2	COBS 1
	3	PS 3 (peers)	3	IS 2
	4	PS 14	4	COBS 2
	5	IS 1		
	6	IS 2		
	7	COBS 1		
II	1	TPM 3	1	TPM 3
	2	CP 16		
	3	Remove CP 16		
III	1	CP 17	1	CP 6
	2	CP 10	2	CP 9
	3	CP 6	3	COBS 16
	4	COBS 16	4	CP 17
	5	CP 21	5	CP 10
	6	CP 9	6	CP 21
	7	COBS 31		
	8	COBS 29		
IV	1	CP 27	1	CP 27
	2	COBS 11	2	COBS 10
	3	COBS 12	3	COBS 12
	4	COBS 23	4	CP 26
	5	CP 26	5	COBS 11
	6	COBS 10		
	7	COBS 22		
	8	COBS 13		
V	1	COBS 6	1	COBS 6
	2	CP 19	2	CP 19
	3	COBS 20	3	COBS 20
	4	COBS 5	4	COBS 5
	5	COBS 18	5	IS 6
	6	COBS 25	6	CP 4
	7	CP 4	7	COBS 18
	8	IS 6	8	CP 18
	9	CP 18		
	10	COBS 7		

Table 19

Discriminant Analysis Results:
Special Education Experts

Cluster	METHOD			
	STEPWISE		Rank Order of Coefficients	
	Step	Entry	Rank	Item
I	1	IS 5	1	IS 5
	2	COBS 2	2	COBS 2
	3	PS 3 (peers)	3	COBS 1
	4	COBS 1		
II	-	None	-	None
III	1	CP 10	1	COBS 16
	2	CP 17	2	CP 6
	3	CP 6	3	CP 10
	4	COBS 16	4	CP 9
	5	COBS 29	5	CP 12
	6	CP 21	6	CP 21
	7	COBS 31		
	8	CP 9		
	9	CP 12		
	10	CP 17 (Remove)		
IV	1	CP 27	1	COBS 22
	2	COBS 12	2	CP 27
	3	COBS 9	3	COBS 11
	4	COBS 11	4	COBS 13
	5	COBS 23		
	6	COBS 22		
	7	CP 26		
	8	COBS 10		
	9	COBS 9 (Removed)		
	10	COBS 13		
V	1	COBS 6	1	COBS 6
	2	CP 19	2	CP 19

Table 20

Discriminant Analysis Results: Generalist Experts

	METHOD			
	STEPWISE		Rank Order of Coefficients	
	Step	Entry	Rank	Item
I	1	IS 5	1	PS 10
	2	PS 3 (peers)	2	COBS 1
	3	COBS 1		
	4	IS 5 (Removed)		
II	-	None	-	None
III	1	CP 9	1	CP 17
	2	CP 17		CP 9
	3	COBS 29		
	4	COBS 27	2	
	5	COBS 26		
	6	CP 21		
	7	COBS 28		
	8	CP 12		
	9	CP 13		
	10	CP 10		
	11	CP 6		
	12	COBS 30		
IV	1	COBS 11		
	2	CP 27	1	CP 27
	3	COBS 12	2	COBS 10
	4	COBS 10		
	5	COBS 11 (Removed)		
V	1	COBS 6	1	COBS 6
	2	CP 18	2	CP 19
	3	COBS 25	3	COBS 19
	4	CP 4	4	CP 4
	5	COBS 5	5	CP 18
	6	COBS 18		
	7	CP 19		
	8	COBS 19		
	9	COBS 7		
	10	IS 6		

Table 21

Discriminant Analysis Results: Clusters

		STEPWISE			R.O.		
		SE	G	All	SE	G	All
IS	1			X			
	2			X			X
	4	//	//	//	//	//	//
	5	X	X	X	X		X
PS	3	X	X	X		X	
	4			X			
COBS	1	X	X	X	X	X	X
	2	X		X	X		X
	4						
TPM	2	//	//	//	//	//	//
	3			X			X
	5						
	6						
	7	None	None		None	None	
	12						
CP	16			X			
COBS	17	//	//	//	//	//	//
CP	6	X	X	X	X		X
	9	X	X	X	X	X	X
	10	X	X	X	X		X
	12	X	X		X		
	13		X				
	17	X	X	X		X	X
	21	X	X	X	X		X
COBS	16	X		X	X		X
	26		X				
	27		X				
	28		X				
	29	X	X	X			
	30		X				
	31	X		X			
CP	14	//	//	//	//	//	//
	26	X		X			X
	27	X	X	X	X	X	X
COBS	9	X					
	10	X	X	X		X	X
	11	X	X	X	X		X
	12	X	X	X			X
	13	X		X	X		
	22	X		X	X		
	23	X		X			
CP	4		X	X		X	X
	18		X	X		X	X
	19	X	X	X	X	X	X
IS	6		X	X			X

		STEPWISE			R.O.		
		SE	G	All	SE	G	All
COBS	5		X	X			X
	6	X	X	X	X	X	X
	7		X	X			
	18		X	X			
	19		X			X	
	20			X			X
	25		X	X			
TOTALS		24	29	35	15	11	24

Key: // = Multivariate F insufficient for inclusion in full analysis

Table 22

Discriminant Analysis Results: Source Lists

Item		Special Ed. Experts	Generalist Experts	All Experts
TPM	1			
	2	///	///	///
	3			*
	4			
	5	///	///	///
	6	///	///	///
	7	///	///	///
	8			
	9			
	10			
	11			
	12	///	///	///
	13			
	14			
CP	1			
	2			
	3			
	4		*	
	5			
	6	*	X	*
	7			
	8			
	9	*	*	*
	10	*	X	*
	11			
	12	*	X	
	13		X	
	14	///	///	///
	15			
	16			X
	17	X	*	*
	18		*	
	19	*	*	
	20			
	21	*	*	*
	22			
	23			
	24			
	25			
	26	X		*
	27	*	*	
	28			
	29		X	
	30			

Item		S.E.	G	All
IS	1			X
	2			*
	3			
	4	///	///	///
	5	*	X	*
	6		X	
	7			
	8			
	9			
	10			
	11			
	12			
PS (peer)	1			
	2			
	3	X	*	X
	4			X
	5			
	6			
	7			
	8			
	9			
	10			
	11			
	12			
	13			
PS 1-13				
COBS	1	*	*	*
	2	*		*
	3			
	4	///	///	///
	5		X	
	6	*	*	
	7		X	
	8			
	9	///	///	///
	10	X	*	
	11	*	X	
	12		X	
	13	*		
	14			
	15			
	16	*		*
	17	///	///	///

Item		S.E.	G	All
COBS	18		X	
	19		*	
	20			*
	21			
	22	*		
	23	X		
	24			
	25		X	
	26	X	X	
	27		X	
	28		X	
	29	X		X
	30		X	
	31	X		X

KEY: STEPWISE = X
R.O. as well = *
■ = Insufficient Data
/// = Multivariate F insufficient for inclusion in full analysis

Discussion

As discussed earlier, the discriminant analysis procedure in the present application is designed to result in the selection of DISCRIMINATING VARIABLES which, when combined in the discriminant function(s) derived, will result in a separation of the CASES (observed teachers, here) which resembles, as closely as possible, the GROUP assignment given (i.e., the assignment by the Expert Q-sort).

The STEPWISE analysis resulted in the selection of 24 test items in the ExpSpe run (Special Education Experts); 29 items in the ExpNon run (Generalist Experts); and 35 in the third run, which made GROUP assignments on the basis of the combined ratings of all six judges.

Inasmuch as the STEPWISE analysis included (by definition) all items entered on all steps, it is a less rigorous approach to final analysis than is the rank ordering of the discriminant analysis function coefficients, which does not include all items entered. The Rank Order method resulted in the selection of 15 (62.5%) of the 24 ExSpe items, 11 (37.9%) of the ExpNon items; and 24 (68.5%) of the 35 ALL items.

Which (if not all) of these items to select for further study and utlization is a question without a direct answer. Several solutions are presented here for consideration. Table 23 presents those items with STEPWISE steps of "1" or "2".

Table 23

Discriminating Variables which Entered the STEPWISE Discriminant Analysis on the First and Several Steps

Test	Item	Step	Rating Group
IS	5	1	ExpSpe; ExpNon; All
TPM	3	1	All
CP	9	1	ExpNon
CP	10	1	ExpSpe
CP	17	1	All
CP	27	1	ExpSpe and All
COBS	6	1	ExpSpe; ExpNon; All
COBS	11	1	ExpNon
PS (peer)	3	2	ExpNon
CP	10	2	All
CP	17	2	ExpSpe and ExpNon
CP	18	2	ExpNon
CP	19	2	ExpSpe and All
CP	27	2	ExpNon
COBS	2	2	ExpSpe and All
COBS	11	2	All
COBS	12	2	All

Table 24 presents those items with standardized discriminant function rank orders of one or two.

Table 24

Discriminating Variables with First and Second
Rank-Ordered Standardized Discriminant Function Coefficients

Test	Item	Rank Order	Rating Group
CP	17	1	ExpNon
CP	27	1	ExpNon
IS	5	1	ExpSpe and All
PS (peer)	3	1	ExpNon
COBS	6	1	ExpSpe; ExpNon; All
COBS	12	1	All
COBS	16	1	ExpSpe and All
COBS	22	1	ExpSpe
CP	6	2	ExpSpe
CP	9	2	ExpNon and All
CP	19	2	All
CP	27	2	ExpSpe
COBS	1	2	ExpNon and All
COBS	2	2	ExpSpe
COBS	10	2	ExpNon and All

Tables 23 and 24 overlap considerably and result in the identification of sixteen test items. Additional items could, of course, be added by supplementing this list with items entered third in the STEPWISE procedure and items with a rank order of three.

Other selection criteria could be developed as well, giving consideration to the rating groups and the implications of inter-group differences of opinion among expert raters. Or, if a larger number of items is desired, it would be perfectly justifiable to use all of the items listed in Tables 18 - 22 since all of these items have passed the series of rigorous tests which comprise the discriminant analysis procedure.

STUDY III. Selecting Competencies for Special Education Teachers

If a set of generic competencies are truly useful across all disciplines and specialized teaching areas, there should be no significant differences in the results obtained from a special education and a non-special education population. According to these generic competency items, the null hypothesis might read:

H_o: Special Education Teachers = Non-Special Education Teachers

If that were not the case, one competency test of two different types of teachers would hardly be acceptable. Rather than reject an entire list, this study goes further to identify which competencies do measure both special and non-special education teachers. While the rejection of many items may be the expectation, those competencies which do pass such a test can be included in an assessment instrument for all teachers. Study I concerned concurrent validation to see which competency items could measure as the experts had done. Study II was a construct validation to identify specific items for special education teachers. Study III then completes the trilogy as a content validation of generic competencies that could be used in assessing all teachers including those in special education.

Traditional tests of content validation usually entail the survey of expert opinion in the field. Elaborate procedures to learn if the instrument measures what it is supposed to have been detailed (ETS, 1978). In this study the proposed competency assessment instrument, BTAI, was created from lists of over 750 generic teaching competencies. Content validity was established by ratings of a 30-member panel of experts. This "expert opinion" method is the same procedure noted in special education research (Shores, Cegelka, Nelson, 1973). Further verification was made through a state-wide survey of over 1500 teachers in Georgia. Although special education teachers were included in both the expert panel and among the practicing teachers, their particular opinion may have been diluted by the majority voice of all the others. The weaknesses previously cited about teacher perspectives of what is or is not important raise further questions about content validation through surveys. It is the position of this study that a greater test of content validity might be made through field demonstration rather than opinion alone. The term "generic" competency may be valid if this instrument can be applied to special and non-special education teachers with equanimity.

In order to discover the differences between special and non-special education teachers by competencies, a sample population of both types of teachers was drawn using all the beginning teachers in eight contiguous school districts in Georgia. There were 193 teachers in all of whom 25 were in special education. The instrument was administered to all. The BTAI was developed to measure generic teacher competencies across all types and levels of instruction.

If we are to believe that special education teacher competencies do not differ from those of non-special education teachers, there should be no significant differences in group means on each competency. However, if prior indications of differing perspectives of their students are true, special and non-special education teachers should vary on those competencies.

Data Analysis

This part of the project is concerned both with an overall description of special education teachers' competencies and with the specific competencies and more specific items within each competency. The BTAI results in a profile of each teacher on 20 competencies; the competencies have from 2 to 5 indicators each for a total of 56 items; each item is rated by varying combinations of data collectors, principals, peer teachers, and students making a total of 282 data entries for each teacher. Profile analysis will allow us to simultaneously test the equality of means of all these variables by using the multivariate Hotelling's T^2. The pooled within-groups covariance and the distance between the means of the two groups will result, which then can be transformed into an F statistic. It will be able to identify (1) whether the two groups significantly differ overall, (2) in which competencies they significantly differ, and (3) by which items within a competency they significantly differ. As a test for content validity all these variables should hold true. The possibility exists that some items and competencies will work while others may not. The competencies may be interpreted to show similarities between special and non-special education teachers. The rejected competencies do not necessarily mean differences but require further study to explain.

Hotelling's T^2 produces an F statistic for overall comparison and then both a pooled and separate t are computed for significance ($p < .05$):

> The F (for variances) statistic tests the hypothesis that the variances for the two groups are equal.

The t (pooled) statistic tests the hypothesis that the means for the two groups are equal assuming that the variances for the two groups are equal.

The t (separate) statistic tests the hypothesis that the means for the two groups are equal without the assumption of equal variances. Since there is little loss in using the separate variance t even when the pooled t may be appropriate and since the error in using the pooled t when variances are not equal can be very serious, the separate variance t should be used in most applications.

The null hypothesis will be accepted:

(H_o) If the variances do not significantly differ and the mean scores do not significantly differ. There exist no differences and the generic statements are accepted.

Considering the variance and means, three other possibilities may occur if the null is rejected:

(H_1) If the variances differ but the mean scores do not differ, the items cannot be accepted as generic measures. Although the means are equal, discrimination is greater within one of the two groups of teachers.

(H_2) If the variances do not differ and the mean scores do differ, the items must be rejected because one group would systematically receive higher ratings than the other.

(H_3) If the variances differ and the mean scores differ, the items must be rejected as having no basis for comparison between the two groups.

Using the following chart as a visual guide, the results can be assigned as follows:

Figure 3

Variances

Mean	=	≠
=	(H_o) Accept 1	(H_1) Reject 2
≠	(H_2) Reject 3	(H_3) Reject 4

Results

Table 25 shows the results of Hotelling's T^2 as it is applied to the twenty overall competencies of the BTAI. In 15 out of 20 competency statements, the null hypothesis (Special Education = Non-Special Education) is accepted. The accompanying research question (do the two groups significantly differ overall?) must be answered negatively. Therefore, in 75% of the BTAI competency statements it can be stated that generically there is no difference between special education and non-special education teachers as measured by the BTAI.

Table 25

BTAI Competency	F Test	Separate t	Pooled t	Group Type	$\bar{x}$ score SpE > NSpE	Accept/ Reject
XX. Plans instruction (TPM)	.914		.110	1	+	A
XIX. Organizes for individuals (TPM)	.143		.000	3	+	R
XVII. Uses methods related to objectives (CP)	.175		.098	1	+	A
XIII. Communicates with learners (CP)	.345		.147	1	+	A
XVI. Reinforces learners (CP)	.307		.351	1	+	A
XV. Uses a variety of methods (CP)	.817		.116	1	+	A
XIV. Involves learners (CP)	.719		.663	1	+	A
XIII. Understands subject matter (CP)	.642		.189	1	-	A
XII. Organizes for instruction (CP)	.270		.767	1	+	A
XI. Adjusts for individuals (CP)	.241		.460	1	-	A
X. Demonstrates enthusiasm (IS)	.332		.177	1	+	A
IX. Developes self concepts (IS)	.287		.043	3	+	R
VIII. Discourages disruptions (IS)	.043	.017		4	+	R
VII. Manages disruptions (IS)	.136		.770	1	-	A
VI. Obtains information (TPM)	.000	.000		4	+	R
V. Refers learners tc specialists (TPM)	.016	.000		4	+	R
IV. Revises instruction (TPM)	.385		.506	1	+	A
III. Works with colleagues (PS)	.120		.233	1	-	A
II. Evaluates and improves (PS)	.363		.269	1	-	A
I. Completes obligations (PS)	.367		.904	1	+	A

Table 26 responds to the second research question (in which competencies do they they significantly differ?) It should be noted, however, that in the five statements

reflecting significant differences (Competencies V, VI, VIII, IX, XIX) the special education group had higher mean scores than non-special education group. It should also be noted that these statements reflect high individualization techniques as well as "preventive maintenance" in regard to behavior descriptors - items that are stressed in a special educators curriculum and training.

Table 26

Competency Statement	F Test	Separate t	Pooled t	Group Type	$\bar{x}$ score SpE > NSpE	A/R
VI. Obtains information (TPM)	.000	.000		4	+	R
V. Refers learners to specialists (TPM)	.016	.000		4	+	R
II. Discourages disruptions (IS)	.043	.017		4	+	R
IX. Develops self concepts (IS)	.287		.043	3	+	R
IX. Organizes for individuals (TPM)	.143		.000	3	+	R

Tables 27 through 30 illustrate resulting differences within a competency statement and address the third research question (by which items within a competency do the groups differ?) as well as the alternate hypothesis statements (H_{1-3}). The following list highlights the discrepancies.

Table 27

Teaching Plans and Materials	Group Type D.C.	Pr.	P.T.	A/R
XX. Plans instruction to achieve selected objectives				A
1. Specifies or selects learning objectives for lessons.	1	1	3	A
2. Specifies or selects teaching procedures for lessons.	1	2	4	R
3. Specifies or selects content, materials, and media for lessons.	1	1	1	A
4. Specifies or selects materials and plans for assessing progress of learners.	1	1	1	A

Teaching Plans and Materials (cont'd)	Group Type D.C.	Pr.	P.T.	A/R
XIX. Organizes instruction to take into account individual differences among learners.				R
5. Organizes instruction to take into account differences among learners in their capabilities.	4	3	3	R
6. Organizes instruction to take into account differences among learners in their learning styles.	4	3	3	R
7. Organizes instruction to take into account differences among learners in their rates of learning.	3	3	3	R
VI. Obtains information about the needs and progress of individual learners.				R
8. Obtains information about learners from standardized test results and cumulative records.	4	4	4	R
9. Uses teacher-made tests to obtain information about learner progress.	1	1	1	A
10. Communicates with individual learners about their needs and progress.	3	1	1	A
V. Refers learners with special problems to specialists.				R
11. Identifies learners who require the assistance of specialists.	3	3	4	R
12. Obtains information about and assistance with learners from co-workers and parents.	3	3	3	R
VI. Uses information about the effectiveness of instruction to revise it when necessary.				A
13. Uses test results and teacher observation data to obtain information on the effectiveness of instruction.	1	1	1	A
14. Uses data to revise instruction when needed.	1	1	1	A

Competency XX - "Plans instruction to achieve selected objectives."

Recommendation: No difference between groups - Accept.

Discrepance: Item #2 - "Specifies or selects teaching procedures for lessons."

Location: Conflict between peers and principals.

Competency XIX - "Organizes instruction to take into account individual differences among learners."

Recommendation: Difference between groups - Reject.

Discrepance: Item #5 - "Organizes instruction to take into account differences among learners in their capabilities."

Discrepance: Item #6 - "Organizes instruction to take into account differences among learners in their learning styles."

Location: Peers and principals disagree on same level but against data collectors who show greatest discrepance.

Discrepance: Item #7 - "Organizes instruction to take into account differences among learners in their rates of learning."

Location: All raters show discrepance on same level.

Competency VI - "Obtains information about the needs and progress of individual learners."

Recommendation: Difference between groups - Reject.

Discrepance: Item #8 - "Obtains information about learners from standardized test results and cumulative records."

Location: All raters show discrepance on same level.

Discrepance: Item #9 - "Uses teacher-made tests to obtain information about learner progress."

Location: (Shows no difference in all groups but competency shows opposite for the total.)

Discrepance: Item #10 - "Communicates with individual learners about their needs and progress."

Location: Data collectors against peers and principals.

NOTE: These three items taken together show the greatest spread, discrepance, and conflict of score against the total rejection of the competency statement indicating further research is needed.

Competency V: "Refers learners with special problems to specialists."

Recommendation: Difference between groups - Reject.

Discrepance: Item #11 - "Identifies learners who require the assistance of specialists."

Location: Data collectors and principals have equal rejection versus stronger rejection of peer teachers.

Discrepance: Item #12 - "Obtains information about the assistance with learners from co-workers and parents."

Location: All raters show rejection on same level.

NOTE: Competency V as an overall competency shows consistent item rejection which in turn reflects differences in groups. Further research is indicated.

Competency IV - "Uses information about the effectiveness of instruction to revise it when necessary."

Recommendation: There is no difference between groups - Accept.

NOTE: No discrepance within items #13 and #14 between data collector, peers and principals.

TPM Summary: Overall Generic Competency Statements

Competencies V, VI, and XIX indicate a marked difference exists between special education and non-special education groups. These statements deal directly with individualization techniques and are germane to special education training more so than non-special education training. Further research is suggested in these

statements as well as within competency items that reflect discrepance.

illustrates the findings of BTAI: Classroom Procedures. Pupil perceptions (Ss) were recorded but both groups exceeded the 10% missing cases criteria for exclusion. Special education consistently had over 80% missing data cases per item while non-special education consistently had over 11% missing data cases per item. Student scores are included for illustrative purposes only.

Competency XVIII - "Uses instructional techniques, methods and media related to the objectives."

Recommendation: No difference between groups - Accept.

Discrepance: Item #1 - "Operates audiovisual and other instructional equipment."

Location: Data collectors and peers are equal versus the principals.

Discrepance: Item #2 - "Uses materials compatible with the range of learner abilities."

Location: Data collectors versus peers and principals who are equal.

Items 3, 4, 5, all raters are in agreement of acceptance: no difference within items.

Competency XVII - "Communicates with learners both orally and in writing."

Recommendation: No difference between groups - Accept.

Items 6 and 7, all raters are in agreement of acceptance: no differences within groups.

Discrepance: Item #9 - "Provides directions and explanations using different words and ideas when learners misunderstand."

Location: Data collectors and peers are in acceptance versus principal rejection.

Discrepance: Item #10 - "Communicates the impression that the teacher knows what is to be done and has a means of doing it."

Location: Item shows difference between groups; data collectors and principals agree in level of rejection versus peers acceptance.

Table 28

Classroom Procedures	Group Type D.C.	Pr.	P.T.	Ss	A/R
VIII. Uses instructional techniques, methods, and media related to the objectives.					A
1. Operates audiovisual and other instructional equipment.	1	2	1	1	A
2. Uses materials compatible with the range of learner abilities.	3	1	1	1	A
3. Uses instructional materials that provide appropriate practice on the objectives.	1	1	1	1	A
4. Provides experiences in which learners apply what they have learned.	1	1	1	1	A
5. Organizes learning activities sequentially and logically.	1	1	1	1	A
XVII. Communicates with learners both orally and in writing.					A
6. Gives clear directions and explanations.	1	1	1	1	A
7. Communicates to learners the purpose of learning activities and their relation to past and future events.	1	1	1	4	A
8. Seeks and responds to learners questions during explanations.	1	3	1	1	A
9. Provides directions and explanations using different words and ideas when learners misunderstand.	1	2	1	1	A
10. Communicates the impression that the teacher knows what is to be done and has a means of doing it.	2	2	1	2	R
XVI. Reinforces and encourages the efforts of learners.					A
11. Receives, accepts, and uses ideas from learners as part of the teaching procedures.	1	1	1	1	A
12. Encourages learners to elaborate on their responses.	1	1	1	2	A

Classroom Procedures (cont'd)	Group Type				
	D.C.	Pr.	P.T.	Ss	A/R
13. Provides learners with opportunities for participating.	1	1	4	1	A
XV. Demonstrates a repertoire of teaching methods and techniques.					A
14. Demonstrates ability to work with individuals, small groups, and large groups.	1	2	1	1	A
15. Demonstrates ability to conduct lessons using a variety of methods and techniques.	1	1	1	1	A
16. Selects teaching methods appropriate for objectives and learners.	3	1	3	1	R
17. Uses questions at a variety of cognitive levels.	1	1	1	1	A
XIV. Uses procedures which involve the learner in the instruction.					A
18. Uses procedures which initially get learners involved in tasks.	1	1	1	1	A
19. Maintains learner involvement in tasks.	3	1	1	1	A
20. Provides feedback to learners on their progress.	3	1	1	1	A
XIII. Demonstrates skill with and understanding of the school subject.					A
21. Demonstrates skills and thought processes important to the subject.	1	1	1	1	A
22. Presents up-to-date information about the topic being taught.	1	2	1	1	A
23. Provides learners with information about the importance of specific topics.	1	1	1	1	A
XII. Organizes time, space, materials, and equipment for instruction.					A
24. Adjusts ventilation, temperature, and lighting in the room, if applicable.	1	1	1	1	A

Classroom Procedures (cont'd)	Group Type D.C.	Pr.	P.T.	Ss	A/R
25. Plans for routine tasks.	1	1	1	1	A
26. Organizes materials and time for efficient use by learners.	1	1	1	1	A
27. Provides a learning environment that is attractive, orderly and safe.	1	1	1	2	A
XI. Adjusts instruction to individual learners and to changes in conditions.					A
28. Uses current events or unexpected happenings to supplement lessons.	1	1	1	1	A
29. Encourages individual learners to undertake special projects.	1	1	1	1	A
30. Remains calm and poised as adjustment to lessons are made.	1	1	2	1	A

NOTE: Ss (pupils perception missing cases > 10%; SpE > 80%, NSpE > 11% ∴ cannot be used.

NOTE: Item #10 is the only item that is rejected in this competency statement indicating a need for further research and revision.

Competency XVI - "Reinforces and encourages the efforts of learners."

Recommendation: No difference between groups - Accept.

Items 11 and 12, all raters are in agreement of acceptance: no difference within groups.

Discrepance: Item #13 - "Provides learners with opportunities for participating."

Location: Data collectors and principals are in acceptance versus peers rejection.

Competency XV - "Demonstrates a repertoire of teaching methods and techniques."

Recommendation: No difference between groups - Accept.

Items #15 and #17, all raters are in agreement of acceptance; no difference between groups.

Discrepance: Item #14 - "Demonstrates ability to work with individuals, small groups, and large groups."

Location: Data collector and peer are in agreement of acceptance versus principal rejection.

Discrepance: Item #16 - "Selects teaching methods appropriate for objectives and learners."

Location: Difference between groups; data collectors and peers agree on level of rejection versus principal acceptance.

NOTE: Item #16 is the only item that is rejected in this competency statement; indicates further research for revision.

Competency XIV - "Uses procedures which involve the learner in the instruction."

Recommendation: No difference between groups - Accept.

Item #18, all raters are in agreement of acceptance; no difference between groups.

Discrepance: Item #19 - "Maintains learner involvement in tasks."

Location: Peer and principals are in agreement of acceptance versus data collector rejection.

Discrepance: Item #20 - "Provides feedback to learners on their progress."

Location: Peer and principals are in agreement of acceptance versus data collector rejection.

Competency XIII - "Demonstrates skill with and understanding of the school subject being taught."

Recommendation: There is no difference between groups - Accept.

Items 21 and 23, all raters are in agreement of acceptance: no difference between groups.

Discrepance: Item #22 - Presents up-to-date information about the topic being taught.

Location: Data collector and peer are in agreement of acceptance versus principal rejection.

Competency XII - "Organizes time, space, materials, and equipment for instruction."

Recommendation: There is no difference between groups - Accept.

In all items, all raters are in agreement of acceptance: no difference between groups.

Competency XI - "Adjusts instruction to individual learners and to changes in conditions."

Recommendation: There is no difference between groups - Accept.

In items 28 and 29, all raters are in agreement of acceptance: no difference between groups.

Discrepance: Item #30 - "Remains calm and poised as adjustemnts to lessons are made."

Location: Data collector and principal are in agreement of acceptance versus peers' rejection.

CP Summary

The eight generic competency statements for the Classroom Procedures portion of the BTAI are accepted as reflecting no significant differences between special education and non-special education groups. Only two within competency items are rejected. These items (#10 and #16) suggest the need for further research in these areas.

A second area of concern is the appearance of the principal as the major dissenter in this section. In 20% of the cases, the principal was not in accord with the other two raters. This suggests possible further research as to the reliability of principal's ratings on a teacher's competency profile.

The last area of concern are the pupils. Pupil perceptions (Ss) were recorded but both groups exceeded the 10% missing cases criteria for exclusion. Special education consistently had over 80% missing data cases per item while non-special education consistently had over 11% missing data cases per item. Particularly for special education, the pupil perception results indicate that this portion of the BTAI is not feasible in its present state and should either be revised or excluded entirely. In regard to the non-special education population, this portion at least needs revision if not exclusion.

Table 29 illustrates the findings of BTAI: Interpersonal Skills. The same procedure regarding pupil perceptions that occured in the CP portion were followed here.

Competency X - "Demonstrates enthusiasm for teaching and learning and the subject being taught."

Recommendation: There is no difference between groups - Accept.

In both items of this competency, all raters were in agreement of acceptance: no difference between groups.

Competency IX - "Helps learners develop positive concepts of themselves."

Recommendation: There is a difference between groups - Reject.

Table 29

Interpersonal Skills	Group Type				
	D.C.	Pr.	P.T.	Ss	A/R
X. Demonstrates enthusiasm for teaching and learning and the subject being taught.					A
1. Communicates personal enthusiasm.	1	1	1	1	A
2. Communicates with learners in a way that conveys interest in them and the subject.	1	1	1	1	A
IX. Helps learners develop positive concepts of themselves.					R
3. Provides feedback to learners about their behavior.	4	1	1	1	A
4. Demonstrates warmth and friendliness.	4	3	1	1	R
5. Demonstrates sensitivity to the needs and feelings of learners.	4	1	4	1	R
6. Provides learners with opportunity for success.	4	3	1	1	R
7. Demonstrates patience, empathy, and understanding.	3	1	1	1	A
VIII. Manages interaction in the classroom so as to discourage the occurrence of disruptive behavior.					R
8. Uses communication techniques that foster comfortable interpersonal relationships.	1	1	2	1	A
9. Uses techniques to maintain appropriate behavior.	3	1	1	1	A
10. Establishes rules for class conduct.	1	1	1	1	A
VII. Manages disruptive behavior among learners.					A
11. Manages disruptive behavior and conflicts among learners objectively.	1	1	1	1	A
12. Manages behavior problems in accordance with school policies.	1	1	1	3	A

Discrepance: Item #3 - "Provides feedback to learners about their behavior."

Location: Peer and principals are in agreement of acceptance versus strong rejection by data collector.

Discrepance: Item #4 - "Demonstrates warmth and friendliness."

Location: Data collector and principal reject on different levels versus peer acceptance.

Discrepance: Item #5 - "Demonstrates sensitivity to the needs and feelings of learners."

Location: Data collector and peer are in agreement of strong rejection versus principal acceptance.

Discrepance: Item #6 - "Provides learners with opporutnity for success.

Location: Data collector and principal reject on different levels versus peer acceptance.

Discrepance: Item #7 - "Demonstrates patience, empathy, and understanding."

Location: Principal and peer are in agreement of acceptance versus data collector rejection.

NOTE: Three out of five items within this competency are rejected, resulting in the rejection of the competency. This demonstrates that the competency would measure special and non-special education teachers with significant differences between the groups. Further research is suggested at this point because these items and this competency reflect an integral part of a special education teacher's training.

Competency VIII - "Manages interaction in the classroom so as to discourage the occurrence of disruptive behavior."

Recommendation: There is a difference between groups - Reject.

Discrepance: Item #8 - "Uses communication techniques that foster comfortable interpersonal relationships."

Location: Data collector and principal are in agreement of acceptance versus low rejection by peer.

Discrepance: Item #9 - "Uses techniques to maintain appropriate behavior."

Location: Principal and peer are in agreement of acceptance across rejection by data collector.

In item 10, all raters are in agreement of acceptance: no difference in groups.

Competency VII - "Manages disruptive behavior among learners."

Recommendation - there is no difference between groups - Accept.

In both items of this competency, all raters were in agreement of acceptance: no difference between groups.

IS Summary

Of the four competency statements in this section, X and VII were accepted unanimously as having no differences between groups. Competency statement IX was rejected by within competency items at a 60% rejection rate. Item agreement and disagreement were evenly mixed. Further research is suggested because the disparity occured between peers and principals consistently while the data collector rejected all five items. Competency VIII was rejected overall because it shows differences between groups although within item scoring did not agree with the overall statement rejection. Evidently a cumulative effort is present and further internal analysis is suggested. The rejected competencies are also integral parts of a special education teacher's training and are reflected as differences.

Pupil responses were omitted in this section as they were in the previous CP section due to exceeding rejection criteria.

Table 30 illustrates the findings of BTAI: Professional Standards with its three competency statements. Response was restricted to peers and principals as per instructions of the BTAI Data Collector's Manual.

Table 30

Professional Standards	Group Type PT/PR	Group Type A/R
III. Demonstrates professional traits of character.	1	A
1. Work cooperatively with co-workers, administrators, and community members.	1	A
2. Shares professional materials, and ideas with co-workers.	1	A
3. Demonstrates ethical behavior.	1	A
4. Demonstrates a positive attitude toward the teaching profession.	1	A
II. Determines professional needs through self-evaluation and engages in a professional self-improvement program.		A
5. Participates in in-service functions designed for professional upgrading.	1	A
6. Obtains and evaluates data on professional skills.	1	A
7. Uses journals, books, and meetings to learn about teaching ideas.	4	R
8. Participates in organizations designed to promote professional growth and development.	1	A
9. Participates in school and district activities designed to promote professional growth and development.	1	A
I. Meets professional responsibilities.		A
10. Carries out the recommended policies and procedures of the school district.	2	R
11. Uses appropriate methods to change policies and procedures of the school district.	1	A
12. Completes records and reports.	1	A
13. Carries out instructional and extra-instructional duties.	2	R

Competency III - "Demonstrates professional traits of character."

Recommendation: There is no difference between groups - Accept.

All four items of this competency statement were in agreement of acceptance: no difference between groups.

Competency II - "Determines professional needs through self-evaluation and engages in a professional self-improvement program."

Recommendation: There is no difference between groups - Accept.

In four out of five items of this competency there was agreement of acceptance: no difference between groups.

Discrepance: Item #7 - "Uses journals, books, and meetings to learn about teaching ideas."

This item was strongly rejected indicating a difference between groups.

Competency I - "Meets professional responsibilities."

Recommendation: There is no difference between groups - Accept.

In two out of four times in this competency there was agreement of acceptance: no difference between groups.

Discrepance: Item #10 - "Carries out the recommended policies and procedures of the school district."

Discrepance: Item #13 - "Carries out instructional and extra-instructional duties."

Both of these items rejected indicating differences between groups.

PS Summary

Response was restricted to peers and principals in accordance with BTAI instructions. Item 7, Competency II, reflected high rejection indicating a difference between groups. This item deals primarily with research and up-to-date journal ideas which is a strong part of special education training. Items #10 and #13 of Competency I reflected that further investigation is needed.

Discussion

The following conclusions are based on the data analysis using Hotelling's T^2 as it is applied to the twenty overall competencies of the BTAI. In 15 out of the 20 generic competency statements, the null hypothesis (Special Education = Non-Special Education) is accepted. The accompanying research question (Do the two groups differ overall?) must be answered negatively. In 75% of the BTAI generic competency statements, there is no significant difference between special education and non-special education teachers.

It should be noted, however, that in the five statements reflecting significant differences, the special education group had higher mean scores than the non-special education groups. It should also be noted that these statements reflect high individualization techniques as well as "preventive maintenance" in regard to behavior disruptions - items that are stressed in a special educator's curriculum and training.

Concern is also expressed in regard to the efficacy of using student responses in a measurement of a teacher's competency. As was noted previously, over 80% of the special education responses were missing and over 11% of non-special education. It is recommended that special education students be excluded while responses from non-special education students need further study and/or revision.

CONCLUSION

So much data and so many findings resulted from this project that the reader may be overwhelmed by the pieces and not be able to envision the final picture. In this concluding section, the results will be summarized very briefly and the final product will be unveiled. The purpose of this project was to develop an assessment instrument to measure special education teacher competencies. Such an instrument has now been created and each item has been field tested for concurrent, construct, and content validity. The original competency assessment instruments evolved through a distillation process, constantly being refined. Like a good wine, the fermentation was completed and the filtering began with this year's project. Those competency items that have survived the studies herein can be generally applied to special education teachers with the following understandings or scope conditions.

Of the 20 BTAI competencies, 15 did not show any significant differences between special and non-special education teachers. The remaining 5 rated special education teachers higher so that it lost its value of generalizability (see Study III). The particular discrepant element appears to have been individualization skills. Although analysis was more concerned with items and indicators, 14 competencies seem to discriminate effectively among special education teachers. As groups of items the three PS competencies should be dropped as inefficient discriminators (one item has been retained and is discussed below). Two of the TPM competencies and one CP competency were also dropped because of their apparent inability to discriminate among competencies in special education teaching. Of the 31 COBS items, only 18 could meet the same criteria (see Study I). The possibility remains that a reorganization of items into new competencies could produce effective results.

All of the items suffered from disagreements by data sources. Students were not only discordant but often contrary in their ratings of teachers compared to the others. Principals and peer teachers had some similar difficulties. Only reliably trained data collectors consistently produced discriminating ratings. The conclusion reached is that only data collectors should make such competency assessments.

Both instruments (BTAI and COBS) were found to be non-discriminatory by age, sex, race, SES, and experience (see Study IA and Study ID). The question is not answered in this study whether or not the specific items of the newly developed instrument will pass the same tests. The particular teaching assignment in special education may affect the overall rating since, as an observation instrument, behavioral activities are more often measured than cognitive activities are (see Study IC). A difference was noted between the intention to pass competency standards of the special or the non-special education expert (see Study IE and Study II). As the developers had intended, BTAI reacted favorably with the generalists and COBS with the specialists. Ultimately in the new instrument, 29 items came from BTAI and 21 from COBS. It seems reasonable that a special education competency instrument would require some generic competencies as well.

The final list of competency indicators is recommended first as a fair and accurate measure for special education teachers. Secondly, this instrument can discriminate among more and less successful demonstrations of competence and can identify strengths and weaknesses for teachers. Finally, the Special Education Competencies for Teachers (SECT) Assessment Instrument retains an overall construct of what makes special education instruction unique. Essentially, three studies were used in the identification of those items (Study I, Study IF, and Study II). All identified items were included to produce the most complete instrument. Seven of the 50 items were selected by all three studies (marked ≡ in the instrument). Thirty-two items were named in at least two of the studies (marked = in the list). Fifty items in all have been extracted from the combined list of 100 items in BTAI and COBS.

The following pages are the summation of competency assessment indicators that may effectively be used with special education teachers.

VALIDATED ITEMS FROM THE BTAI:

Teaching Plans and Materials

Each of the items below is to be rated on a 5-point scale. Descriptors for the scale points on each item are provided on the following pages.

Plans instruction to achieve selected objectives.

= Specifies or selects teaching procedures for lessons. 2 ☐

= Specifies or selects content, materials, and media for lessons 3 ☐

Organizes instruction to take into account individual differences among learners.

= Organizes instruction to take into account differences among learners in their capabilities 5 ☐

Organizes instruction to take into account differences among learners in their learning styles. 6 ☐

= Organizes instruction to take into account differences among learners in their rates of learning. 7 ☐

Refers learners with special problems to specialists.

Identifies learners who require the assistance of specialists. 11 ☐

Obtains information about and assistance with learners from co-workers and parents. 12 ☐

Classroom Procedures

Each of the items below is to be rated on a 5-point scale. Descriptors for the scale points on each item are provided on the following pages.

Uses instructional techniques, methods, and media related to the objectives.

- Operates audiovisual and other instructional equipment. 1 ☐
- Uses instructional materials that provide appropriate practice on the objectives. 3 ☐
- Provides experiences in which learners apply what they have learned. 4 ☐

Communicates with learners both orally and in writing.

- = Gives clear directions and explanations. 6 ☐
- = Provides directions and explanations using different words and ideas when learners misunderstand. 9 ☐
- Communicates the impression that the teacher knows what is to be done and has a means of doing it 10 ☐

Reinforces and encourages the efforts of learners.

- Encourages learners to elaborate on their responses. 12 ☐
- = Provides learners with opportunities for participating. 13 ☐

Demonstrates a repertoire of teaching methods and techniques.

- Demonstrates ability to work with individuals, small groups, and large groups. 14 ☐
- Selects teaching methods appropriate for objectives and learners. 16 ☐
- = Uses questions at a variety of cognitive levels. 17 ☐

Uses procedures which involve the learner in the instruction.

- = Uses procedures which initially get learners involved in tasks. 18 ☐
- Maintains learner involvement in tasks. 19 ☐

Demonstrates skill with and understanding of the school subject being taught.

- Demonstrates skills and thought processes important to the subject. 21 ☐

Organizes time, space, materials, and equipment for instruction.

- Organizes materials and time for efficient use by learners. 26 ☐
- = Provides a learning environment that is attractive, orderly and safe. 27 ☐

Each of the items below is to be rated on a 5-point scale. Descriptors of the activities associated with each item are given on the following pages. If there has been no or insufficient opportunity to observe a particular performance, leave the item blank. The number selected from the scale below should reflect two factors--how many of the behaviors associated with an item are exhibited and the portion of time the behaviors are used appropriately. For example, a teacher who used only one of the several behaviors listed for an item and always used it appropriately would still be rated low.

5 - 81% or higher
4 - 61-80%
3 - 41-60%
2 - 21-40%
1 - 20% or less

Interpersonal Skills

Demonstrates enthusiasm for teaching and learning and the subject being taught.

Communicates personal enthusiasm. 1 ☐

= Communicates with learners in a way that conveys interest in them and the subject. 2 ☐

Helps learners develop positive concepts of themselves.

= Demonstrates warmth and friendliness. 4 ☐

= Demonstrates sensitivity to the needs and feelings of learners. 5 ☐

= Provides learners with opportunity for success. 6 ☐

Professional Standards

Demonstrates professional traits of character

= Demonstrates ethical behavior. 3 ☐

VALIDATED ITEMS FROM THE COBS:

COS RECORDING FORM

	DIMENSION	Page	R1	NOTES	R2
=	Warmth	1			
=	Enthusiasm	2			
	Reaction to Emotions	4			
	Classroom Conviviality	5			
=	Equity	6			
	Student Involvement	7			
	Student Mobility	10			
=	Classroom Arrangement	11			
=	Positive Reinforcement	12			
=	Effectiveness of Reinforcement	13			
=	Introducing the Lesson	16			
=	Individualizing Instruction	17			
=	Monitoring Learning	18			
=	Guiding the Work Session	19			
=	Pacing Learning Tasks	20			
	Individualized Evaluation	21			
=	Using a Variety of Teaching Resources	22			
=	Pacing Communication	26			
=	Clarity	27			
=	Academic Feedback	28			
=	Consistency of Message	30			

1 Inappropriate 2 3 4 5 Appropriate

Rate each teacher on each item: 1 (low), 2, 3, 4, or 5 (high)

The final product is not complete as a series of items alone. Both BTAI and COBS used a profile of ratings rather than an overall score to evaluate teacher competency. A teacher is not necessarily competent at all things nor incompetent at all things. To be most useful the assessment instrument should point out areas in which the teacher can devote special attention toward improvement.

The identified 50 items for assessing special education teacher competency were studied with meticulous attention to statistical detail. The next and final step to be taken is done with more intuitive manipulation and (we hope) some expertise acquired through the course of the project.

The items have been grouped into 12 competency areas with three major headings: Planning the Instruction, Providing the Learning Environment, and Instructing. The items themselves remain unchanged. Ratings for each item are to be collected by a reliably trained data collector during a one-hour classroom observation. Each competency rating is the computed mean of all items under the heading. Interviews both before and after the observation are used to clarify or supplement the observations before a final rating is given.

Only one validated item (PS 3 - Demonstrates ethical behavior) did not seem to fit into the following organization. The rating for this item was made by principals and peer teachers but not by data collectors. It is recognized that this is an important subject but it is recommended that such an assessment be made separately by administrators and colleagues. The information is still useful and when combined with the SECT assessment instrument and the many other criteria of the school administrator, an overall teacher evaluation can be made on not competency alone but on merit.

The list below outlines the SECT Assessment Instrument competency areas. A cross reference column refers the reader to the original BTAI or COBS item number. Recommended minimum ratings for items come from the mean scores validated in Study I of this report. The minimum competency area scores are the average of these means.

THE SECT ASSESSMENT PROFILE

AREA:
COMPETENCY:
INDICATOR ITEM:

	SUGGESTED MINIMUM RATING	BTAI/COBS SOURCE
A. PLANNING INSTRUCTION		
I. Plans instruction to achieve selected objectives	3.0	BTAI XX
1. Specifies or selects teaching procedures	3	TPM 2
2. Specifies or selects content, materials, and media	3	TPM 3
II. Organizes instruction to take into account individual differences among learners	3.0	BTAI X1X
3. Individualizing Instruction: refers to the teacher's ability to match the difficulty level of work with student's ability level so that it coincides with the student's ability to participate effectively in the activity.	3	COBS 17
4. Accounts for differences in capabilities	3	TPM 5
5. Accounts for differences in learning styles	3	TPM 6
6. Accounts for differences in rates of learning	3	TPM 7
III. Refers learners with special problems to specialists	3.5	BTAI V
7. Identifies learners that need assistance	4	TPM 11
8. Obtains assistance from co-workers	3	TPM 12

THE SECT ASSESSMENT PROFILE

AREA:
COMPETENCY:
INDICATOR ITEM:

	SUGGESTED MINIMUM RATING	BTAI/COBS SOURCE
B. PROVIDING THE LEARNING ENVIRONMENT		
IV. Organizes time, space, materials, and equipment for instruction	2.5	BTAI X11
9. Classroom Arrangement: refers to the type or varieties of seating arrangements the teacher has in her classroom.	2	COBS 11
10. Organizes materials and time	3	CP 26
11. Provides a safe and orderly environment	3	CP 27
12. Student Mobility: refers to the teacher's ability to organize and supervise student movement within the classroom. It includes the teacher's ability to stimulate students to be involved in purposeful learning activities.	2	COBS 10
V. Helps learners develop positive concepts of themselves	3.5	BTAI X1
13. Warmth: refers to the amount of student-teacher contact in the areas of language, body contact and body language.	3	COBS 1
14. Demonstrates warmth and friendliness	4	IS 4
15. Sensitive to needs and feelings	4	IS 5
16. Reaction to Emotions: refers to the amount of acceptance teacher expresses for individuals as well as groups. It includes the degree to which a teacher can communicate her feelings of empathy and understanding to the students.	3	COBS 4

THE SECT ASSESSMENT PROFILE

AREA:
COMPETENCY:
INDICATOR ITEM:

B. PROVIDING THE LEARNING ENVIRONMENT (cont.)	SUGGESTED MINIMUM RATING	BTAI/COBS SOURCE
17. Equity: refers to a teacher's ability to equally divide time and attention among students.	3	COBS 6
18. Provides opportunity for success	4	IS 6
VI. Demonstrates enthusiasm for teaching and learning and for the subject being taught	3.2	BTAI X
19. Communicates personal enthusiasm	4	IS 1
20. Shows interest in learners and the subject	3	IS 2
21. Enthusiasm: refers to the enthusiasm or interest level expressed by the teacher during class activities. It includes involvement with students and interest in their participation and performance.	3	COBS 2
22. Classroom Conviviality: refers to the ability of the teacher to establish a positive, relaxed, and stimulating environment conducive to learning and personal well-being.	3	COBS 5

THE SECT ASSESSMENT PROFILE

AREA:
COMPETENCY:
INDICATOR ITEM:

	SUGGESTED MINIMUM RATING	BTAI/COBS SOURCE
C. INSTRUCTING		
VII. Uses instructional techniques, methods, and media related to the objectives	3.2	BTAI XVIII
23. Operates AV and other equipment	3	CP 1
24. Materials appropriate for objectives	3	CP 3
25. Learners apply what they learn	3	CP 4
26. Pacing Learning Tasks: refers to the ability to regulate the rate of presentation so that it coincides with the schedule.	3	COBS 20
27. Individualized Evaluation: refers to the teacher's evaluation of the individual's contribution or response.	4	COBS 21
VIII. Communicates with learners both orally and in writing	3.0	BTAI XVII
28. Uses different words and ideas	3	CP 9
29. Knows what is to be done	3	CP 10
30. Pacing Communication: refers to the amount of time allowed for a child to complete a response. It refers to the degree to which the teacher paces questioning so that each student is able to participate effectively.	3	COBS 26
31. Consistency of Message: refers to the follow through of the teacher concerning specific verbal directions or consequences expressed by her during class activities.	3	COBS 30

THE SECT ASSESSMENT PROFILE

AREA:
COMPETENCY:
INDICATOR ITEM:

C. INSTRUCTING (cont.)	SUGGESTED MINIMUM RATING	BTAI/COBS SOURCE
32. Academic Feedback: refers to the extent of communication to the student of information about the adequacy, acceptability, completeness, or correctness of student response and directions to assist the learner toward improved performance.	3	COBS 28
IX. Instructs with clarity.	3.0	NEW
33. Introducing the Lesson: refers to the teacher's ability to clearly introduce a new topic or return to a previously discussed topic.	3	COBS 16
34. Clarity: refers to the clarity of instructions and expectations conveyed to the students.	3	COBS 27
35. Gives clear directions and explanations.	3	CP 6
X. Uses procedures which involve the student in the learning task.	3.2	BTAI XIV
36. Gets learners involved in lessons	3	CP 18
37. Maintains learner involvement	3	CP 19
38. Monitoring Learning: refers to the methods and/or techniques by which a teacher checks the progress of students in a learning setting while the students are working.	4	COBS 18
39. Guiding the Work Session: refers to the degree to which the teacher guides the work session in a meaningful and purposeful manner.	3	COBS 19

THE SECT ASSESSMENT PROFILE

AREA:
COMPETENCY:
INDICATOR ITEM:

	SUGGESTED MINIMUM RATING	BTAI/COBS SOURCE
C. INSTRUCTING (cont.)		
XI. Reinforces and encourages the efforts of learners.	3.2	BTAI XVI
40. Encourages learners to elaborate	3	CP 12
41. Provides opportunities for participating	4	CP 13
42. Student Involvement: refers to the degree of participation and interest shown by students in a given activity. Would include individual or group activities.	3	COBS 7
43. Positive Reinforcement: refers to the use of positive reinforcement to modify student behavior.	3	COBS 12
44. Effectiveness of Reinforcement: refers to how quickly responses are reinforced in the classroom.		COBS 13
XII. Demonstrates a repertoire of teaching methods and techniques	3.2	BTAI XV
45. Using a Variety of Teaching Resources: refers to the degree to which the teacher's curriculum encompasses student needs and abilities, through a variety of resources involving multiple modalities.	3	COBS 22
46. Works with individuals and groups	3	CP 14
47. Uses procedures appropriate for lessons	4	CP 16
48. Uses a variety of questions	3	CP 17
49. Demonstrates skills and thought processes with an understanding of the subject being taught	3	CP 21

IMPLICATIONS FOR APPLICATION OF THE SECT ASSESSMENT INSTRUMENT

The Special Education Competencies for Teacher Assessment Instrument (SECT) was formally developed through a rigorous set of statistical analyses. There was a considerable informal analysis also performed that concerns its implementation. The major concern was whether or not teachers and administrators would accept it.

All teachers were interviewed both before and after their observations to prepare and debrief them. They were told the two instruments (BTAI and COBS) were not perfected and that they were participating in the field study phase. Their instrument ratings were shared only with the individual teacher involved. An anonymously returned mail survey (Table 31) was administered. Participating teachers as well as principals and peer teachers were encouraged to write additional comments on their rating sheets (compiled as Table 32).

From the interviews the teachers overwhelmingly supported the idea of competency assessments. They were happy that someone was paying attention to their work and that they would know upon what basis their evaluations would be made. These special education teachers were aware of the proposed generic competency assessment instrument (BTAI) and anxious about its effect in their classroom teaching. Consequently, they welcomed this project's effort in their behalf. The implication here for future implementation of the SECT instrument is that it will be accepted, supported and used.

The survey discloses similar optimism for this project. Of the 66 original teachers, 43 responses were returned (65%). That the idea of classroom observations on a regular basis can be done is supported by Questions 1, 2, 3, 4, 5, 6, and 9. Question 4 raises the only problem area as to interruption of instruction and this appeared to be a problem in only one-fourth of the classrooms. That the idea of competency assessments will meet with support from the teachers is strongly supported by Questions 7 and 8. Question 10 asks if the teachers received the ratings they expected. Most resembling a normal distribution, the 70% affirmation response indicates general acceptance of the results. Incidentally, the most often found response to the open-ended question at the end was "It's about time!"

Table 31

SPECIAL EDUCATION COMPETENCIES FOR TEACHERS PROJECT

PARTICIPANT EVALUATION

(n = 43 Responses/66 Teachers = 65%)

DIRECTIONS: We would appreciate your responses to the following statements by your checking the appropriate spaces. Also, please feel free to comment on any aspect of the project in the spaces provided at the bottom.

Strongly Agree	Agree	No Opinion/ Not Applicable	Disagree	Strongly Disagree		
44%	54%		2%		1.	What was to be done and what I would need to do was made clear to me.
19	23	—	1	—		
34%	14%		9%		2.	It was not a hardship for me to cooperate in this study.
15	6	—	4	—		
51%	47%	2%			3.	The data collectors worked to fit into my schedule.
22	20	1	—	—		
19%	51%	2%	23%	2%	4.	The observation did not interrupt my classroom instruction.
8	22	1	10	1		
40%	44%	12%	5%		5.	Any special needs I had were accommodated.
17	19	5	2	—		
65%	33%		2%		6.	The SECT staff was always professional, courteous, and pleasant.
28	14	—	1	—		
51%	42%	5%	2%		7.	I would recommend similar participation in this study to other teachers.
22	18	2	1	—		
61%	40%				8.	This study is important to the special education teaching profession.
26	17	—	—	—		
49%	30%	21%			9.	My students enjoyed the observation day.
21	13	9	—	—		
7%	63%	14%	12%		10.	The rating results for my own performance were generally what I expected.
3	27	6	5	—		

Please identify any other positive or negative aspects of this project or amplify from above:

_____

_____

_____

_____

91% (39) ☐ yes
7% (3) ☐ no

So that we can anticipate printing needs, will you be requesting a copy of our Final Report?

Thank You

A long list of comments to specific items has been compiled from the individual rating forms. Rather than subject them to our interpretation, they are included in entirity for the curious reader. No comments were submitted about the specific competency assessment instrument (COBS) but some of the general comments on the generic instrument (BTAI) have ramifications for the other as well. These comments demonstrate two important points. First, special education teachers are concerned about their instructional technique and its evaluation. Second, this project fulfills a need and the SECT instrument may be one part of the answer.

Table 32

(Participant comments on the assessment instruments used in the study.)

GENERAL COMMENTS

AREA	BY WHOM	COMMENTS
TMR	ADM	I feel that this instrument is not appropriate for a TMR class evaluation.
BD	PEER	I feel that the classroom behavior of these children were being improved tremendously and the important goals were in the affective domain rather than the cognative. After hearing the teacher explanation of her purposes as related to the written plan and observation I understand much better. I question using this instrument above to evaluate competency based education for children with behavior disorder.
PRIMARY CLASS (6-9 years)	ADM	I feel that this instrument is not appropriate for this area of special ed.
	PEER	These questions are not very good for assessing actual performance for today. But as a person . . This is not a good evaluation for special educators. The questions need to be done a different way.
CHILDREN'S CENTER	ADM	In working with disturbed children, plans are constantly modified and are geared toward behaviors rather than content area, this section seems mostly inappropriate for our purpose. Students help assess their progress in their behavior changes. Many responses were based on the assumption than unit or topics could deal with behavior and the affective domain rather than strictly academics.
IMPAIRED HEARING	ADM	Whole device needs to be shorter and shorter and descriptors need to be specifically for Special Ed. Example - more specific descriptors need to me, provided for (1) Self contained (2) Resource or (3) Itinerant teachers. Number ratings don't seem to be enough to describe characteristics of the exceptionally good teacher. (Perhaps descriptors on a one to five scale would provide information for identification of the outstanding Teacher.

GENERAL COMMENTS

IMPAIRED HEARING	PEER	I feel that this rating system is too long and coulud be revised to fit the needs of the Special Ed. teacher more appropriately.
SPEECH	PEER	Please Note: A letter and a copy of these instruments with specific comments related to speech and language therapists have been sent to the Univ. of Ga.
SPEECH	PEER	Wording of the descriptors is not always applicable to the structure of therapy!!!
SPEECH	PEER	In summary, these comments have indicated that the nature of therapy is application and mandates many of the competencies and indicators. Also. that many of the descriptors are not appropriate for therapy (especially some numbered 4 and 5) and therapy has the therapist penalized!
EARLY CHILDHOOD	ADM	Instrument not applicable to Special Education - Early Childhood.
SLD	PEER	I found this instrument very difficult to apply to the SLD setting.
PUBLIC SCHOOL	ADM	Quality control goes down, on using an instrument as lengthy as this one, as the number of professional staff goes up. It will not be a practical instrument unless some kind of team delegation approach can be worked out for its administration in large schools.
SPECIAL ED CENTER	ADM	Most item and descriptors are obviously skewed to the regular classroom teacher and not to a special education teacher. Many of my responses were forced to comply with the instrument and recommend that a closer look be taken and adaptations made in the instruments wording for application to special education populations (students & teachers). I recommend that a different format be used so that completing the instrument is made easier. The present format is ridiculous, cumbersom and not immediately understandable.

GENERAL COMMENTS

SPECIAL ED CENTER	ADM	As a data collector, this instrument was very confusing to complete because of the way it was stapled together. The criteria and the checklist sheet shouldn't be back to back, rather have the four checklists stapled together. Some of the items on the checklist are also not really applicable to the TMR population, such as the one referring to the teacher's enabling the student to do extra "projects."

SPECIFIC COMMENTS

TPM

EMR	ADM	Why not use this as the questionaire for this segment?
SLD	PEER	All this is expected in a class of 10 Children where the plans are supposed to be individualized according to the students' needs.
EMR	PEER	Lesson plans and objectives were not available; 1 - 14, therefore, have to be answered Not Observed. However, I evaluated and made notes by each item of anything I felt might be helpful.

SPECIFIC COMMENTS

TPM

TPM # 1

BD	ADM	In working with disturbed children plans are constantly modified by necessity. We are dealing more with behavior than content areas This section does not lend itself very well to this scale descriptors.
IMPAIRED HEARING	ADM	Teacher with 6 years experience (preschool) does not need minute written plans.
EMR	PEER	It was apparent that the class I observed was designed to meet math objectives (lesson plans and written objectives not available).
MR	ADM	(5)- Not necessary in certain areas; reading and math sequence charts are required.

SPECIFIC COMMENTS

TPM

TPM # 2

HEARING	PEER	These are difficult to assess without having seen the students' IEP's. These plans have both long term and short term goals written in behavioral terms.

SPECIFIC COMMENTS

TPM

TPM #3

HEARING	PEER	The materials to be used are supplied by the regular classroom teacher. This teacher is tutoring the student in lessons required by another teacher.

SPECIFIC COMMENTS

TPM

TPM #4		
SPEECH	PEER	I.E.P. mandates this.
HEARING	PEER	NA Tests are taken in the regular classroom
BD	PEER	NA to BD Resource
MR	ADM	NA - ongoing informal assessment toward objectives with each lesson, no "formal" testing is done - child will be able to assemble a four-piece puzzle is a criterion referenced objective.

SPECIFIC COMMENTS

TPM

TPM # 5

HEARING	PEER	Therapy is this.
EMR	PEER	In so far as the resource EMR teacher has the responsibility of carrying out regular teachers instructions on a level adopted to her students abilities, all practice are employed.

SPECIFIC COMMENTS

TPM

TPM #6

HEARING	PEER	I.E.P.
SPEECH	ADM	Consultation with learners is NA

SPECIFIC COMMENTS

TPM

TPM #7

HEARING	PEER	Therapy demands this.
BD	ADM	(b) Assistance from students in the regular school program is used also.

SPECIFIC COMMENTS

TPM

TPM # 8

HEARING	PEER	(4) IEP mandates this (5) NA for SED Children
HEARING	ADM	Local or national norms (where info. is available!!! norms in deaf at preschool age is rare!!!!
BD	PEER	NA, science class - observation class. In math, uses Key Math
SLD	PEER	(5) - SLD?

SPECIFIC COMMENTS

TPM

TPM # 9

HEARING	PEER	Everything is done on an individual basis. The teacher is working with each student in a different subject.
SPEECH	PEER	Each response is "tested" evaluated.
HEARING	PEER	Teacher continually tests learners progress with each presentation but #5 seems inappropriately worked for teaching at this level
BD	PEER	Uses classroom checklists instead of teacher made tests.

SPECIFIC COMMENTS

TPM

TPM #10		
SPEECH	PEER	(3) NA for SED child of ten
BD	ADM	This is done mainly with students' parents.

SPECIFIC COMMENTS

TPM

TPM # 11

HEARING	PEER	All of these are special education students with hearing problems. In addition, several of her students have other disabilities or problems--such as learning disabilities or behavior problems or emotional problems. They have been referred to specialists in that area and are receiving help through those programs.
SPEECH	PEER	Speech path. is a specialist and a member of a team of such.
BD	ADM	This is done as a group.
HEARING	PEER	This has nothing to do with an assessment of her plans.

SPECIFIC COMMENTS

TPM

TPM #12

EMR	PEER	Attempts to maintain some contact are made. I suspect interaction with parents is difficult. Probably handled as well as reasonable.

SPECIFIC COMMENTS

TPM

TPM # 13

HEARING	PEER	Teacher makes audio tapes of students speech and language and reviews them at intervals. She is also visited by the supervisor at intervals throughout the year and receives oral and written feedback from the supervisor regarding teaching techniques, etc.
SPEECH	PEER	This is built into the Impaired Speech & Language program. Therapist does not have to arrange it.
BD	PEER	The ordinary classroom teacher does not have access to video recorders and in some cases audio recorders are not accessible either.

SPECIFIC COMMENTS

TPM

TPM #14

BD	PEER	(5) Most special education teachers have periodic visits from administrators for observation.

GENERAL COMMENTS

		CP
BD	ADM	In answering questions concerning units or topics I have assumed that this could include affective aspects as we do not deal specifically with academics in the psycho. ed. ctr.

SPECIFIC COMMENTS

CP

CP #1

HEARING	PEER	NA not appropriate for this lesson, That is a tutoring session
PRIMARY CLASS	ADM	Lack of appropriate materials

SPECIFIC COMMENTS

CP

CP#4 SPEECH	PEER	Therapy <u>is</u> application.

SPECIFIC COMMENTS

CP

CP #5		
S PEECH	PEER	IEP mandates.
SLD	PEER	Textbooks and county course guide are organized sequentially.

SPECIFIC COMMENTS

CP

CP #6

B D	PEER	These are special education students -- not all will always understand.

SPECIFIC COMMENTS

CP

CP#7

SPEECH	PEER	NA for many SED children.

SPECIFIC COMMENT

CP

CP #8		
SPEECH	PEER	NA for therapy usually. Questions rarely occur.

SPECIFIC COMMENTS

CP

CP # 11

SPEECH	PEER	NA, especially with SED children.
BD	PEER	(5) Usually doesn't get to this point with these type students.
HEARING	PEER	How do you do #5 in a reading lesson?
SPEECH	PEER	Not usually appropriate for therapy. Therapist should not be penalized, but is.

SPECIFIC COMMENT

CP

CP #12		
SPEECH	PEER	Not usually appropriate for therapy. Therapist should not be penalized, but is.

SPECIFIC COMMENTS

CP

CP #13

SPEECH PEER Therapy is this.

SPECIFIC COMMENTS

CP

CP #14

HEARING	PEER	This lesson was done entirely on an individual basis as each student was working on a different subject.
SPEECH	PEER	Only 1 observed since last observation & evaluation of therapist.
SLD	PEER	Don't understand.
SPEECH	PEER	Not usually appropriate for therapy. Therapy should not be penalized, but is.

SPECIFIC COMMENTS

CP

CP#15

SPEECH	PEER	Inquiry, discussion, probable solving, NA, so therapist is penalized.
SPEECH	PEER	Not usually appropriate for therapy. Therapist should not be penalized, but is.

SPECIFIC COMMENTS

CP

CP #17

SPEECH	PEER	NA for SED child observed.
SPEECH	PEER	NA in same way as in classroom.

SPECIFIC COMMENTS

CP

CP # 18		
SPEECH	PEER	(3) & (5) NA for SED child

SPECIFIC COMMENTS

CP

CP #19

BD	PEER	Has several BD students that disrupt all classes.

SPECIFIC COMMENTS

CP

CP # 20

SPEECH	PEER	(3), (4), (5) NA for SED

SPECIFIC COMMENTS

CP

CP #23

MR	ADM	Item not completed because teacher is a student.

SPECIFIC COMMENTS

CP

CP # 24

EARLY CHILDHOOD	ADM	"If strike sentence about micro-environment.
BD	PEER	(5) Not recommended by most high school principals.
DEAF	PEER	Don't have control of temperature.
SPEECH	PEER	No provision for changing is available.
MR	ADM	Not completed beacuse teacher is a student.

SPECIFIC COMMENTS

CP

CP #26

BD	PEER	Best for type class (3)
MR	ADM	(4 & 5) Not appropriate indicators.

SPECIFIC COMMENTS

CP

CP #27

Early Childhood	ADM	But in an early childhood program it would be virtually impossible to obtain a 5 because the children are not ready to "assume a large responsibility for classroom."
SPEECH	PEER	Teacher makes the best of an "undeal" situation - has to share room.
SPEECH	PEER	(5) NA for therapy at all!
MR	ADM	Not completed because teacher is a student.

SPECIFIC COMMENTS

IPS #11

SPEECH	PEER	Rarely occurs with SED child in speech & Language therapy

SPECIFIC COMMENTS

PS

SPECIFIC COMMENTS

PS

PS #5		
BD	PEER	Only on local events. We are discouraged on attending national meetings.

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APPENDIX:

A. BTAI

B. COBS

C. Data Tables

APPENDIX A

The materials in this manual are for trial use only. Recommendations from persons who systematically use them and results of research and evaluation studies will be used to guide revision of the materials.

TEACHER PERFORMANCE ASSESSMENT INSTRUMENTS:

MANUAL FOR DATA COLLECTORS*

Trial Edition

September, 1977

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Foreword

The instruments and procedures in this manual are designed to assess 20 teaching competencies that were selected for the state of Georgia. Many people and institutions have contributed to this project. Members of the Division of Program and Staff Development of the Georgia Department of Education and the Student Teacher/Beginning Teacher Ad-Hoc Committee of the Georgia Teacher Education Council have received materials and made suggestions. Over 4,000 teachers, administrators, and college professors participated in the selection of the competencies. Teachers and administrators have helped to select the behaviors related to the competencies, to prepare materials for the training program, and to conduct preliminary tryouts of the instruments. Competency assessment projects in Carroll County and Dekalb County have preceeded this project and have contributed materials, procedures, and counsel. In short, the materials that are now to undergo tryout have come from many hands and heads.

The steps followed in designing a system for assessing teaching competence in an on-the-job setting included:

a. identifying a tentative list of competencies that might be desirable

b. selecting competencies from the list that were considered most important

c. identifying behaviors that corresponded to the competencies

d. developing instruments to guide the assessment of the behaviors

e. preparing a program to train people to use the observation instruments

f. conducting research and evaluation studies to determine the validity of the competencies and indicators, the reliability and validity of the instruments, and the adequacy of the training program

g. revising the instruments and training procedures based on practical experience.

Some of the steps described above that are involved in assessing teaching competence have been completed, others are under way, and still others are scheduled for this year. Neither the instruments nor procedures for their use are in final form. Both will be changed based on the results of tryouts during the 1977-78 academic year. Your participation in this effort is encouraged. If you have suggestions to make about the project materials, write to us or call (404 542-7571).

September, 1977
JRO
WRC
CEJ

Teaching Competencies

The five instruments included in this manual were developed to gather evidence concerning the 20 teaching competencies selected for assessment. By turning to the instruments listed beside each competency and examining the numbered items, the specific descriptions of behavior used to define each competency statement can be identified. The competency statements are clustered under 6 teaching functions as an aid to understanding their intent.

Teaching Functions	Competency Statements	Items Used to Assess Competencies
Planning Instruction	-Plans instruction to achieve selected objectives	TPM* 1, 2, 3, 4,
	-Organizes instruction to take into account individual differences among learners	TPM 5, 6, 7
Instructing	-Uses techniques, methods and media related to the objectives	CP 1, 2, 3, 4, 5 SP 1, 2, 3, 4, 5
	-Communicates with learners	CP 6, 7, 8, 9, 10 SP 6, 7, 8, 9, 10
	-Reinforces and encourages learners	CP 11, 12, 13 SP 11, 12, 13
	-Demonstrates a repertoire of methods and techniques	CP 14, 15, 16, 17 SP 14, 15, 16, 17
	-Involves learners in the learning tasks	CP 18, 19, 20 SP 18, 19, 20
	-Demonstrates understanding of subject matter	CP 21, 22, 23 SP 21, 22, 23
Managing Instruction	-Organizes time, space, and materials for instruction	CP 24, 25, 26, 27 SP 24, 25, 26, 27
	-Adjusts instruction to individuals and conditions	CP 28, 29, 30 SP 28, 29, 30

*The instrument names used in this column are abbreviated as follows:

TPM Teaching Plans and Materials
CP Classroom Procedures
IS Interpersonal Skills
PS Professional Standards
SP Student Perceptions

Teaching Functions	Competency Statements	Items Used to Assess Competencies
Providing the Learning Environment	-Demonstrates enthusiasm for teaching and the subject	IS 1, 2 SP 31, 32
	-Helps learners develop positive self concepts	IS 3, 4, 5, 6, 7 SP 33, 34, 35, 36, 37
	-Manages interactions to discourage disruptions	IS 8, 9, 10 SP 38, 39, 40
	- Manages disruptive behavior	IS 11, 12 SP 41, 42
Evaluating	-Obtains information about the needs and progress of learners	TPM 8, 9, 10
	-Refers learners with problems to specialists	TPM 11, 12
	-Collects data on instruction and revises when needed	TPM 13, 14
Being a Professional	-Works cooperatively with colleagues	PS 1, 2, 3, 4
	-Engages in self-evaluation and self-improvement	PS 5, 6, 7, 8, 9
	-Completes obligations of contract	PS 10, 11, 12, 13

Assessing Teachers

The instruments in this manual can be used with students during the student teaching phase of their training or with employed teachers who are engaged fulltime in teaching. For the latter group, the regularly employed teachers, the suggestions for using the instruments and collecting the assessment data can be used as described in the "Conditions of Use" provided with each instrument. Two modifications need to be made when assessing a student teacher.

1. The three persons that complete the Teaching Plans and Materials, Classroom Procedures, and Interpersonal Skills instruments are the data collector, the cooperating teacher with whom the student teacher is working, and the college or university supervisor who regularly visits the student teacher.

2. The Professional Standards instrument is not completed for student teachers.

Each person that completes any instrument will find occasions when the amount of information available to them is not sufficient to complete an item. When this occurs, reasonable efforts should be made to acquire the information by extending the observation time, asking additional questions, or examining more materials. But if these efforts fail, the item should be left blank.

Teacher Performance Assessment Instruments*

TEACHING PLANS AND MATERIALS

Trial Edition

Purpose

The purpose of this instrument is to guide the assessment of the plans, procedures, and materials used by teachers. It also deals with the information used and procedures followed by teachers in handling learning problems, in monitoring the progress of learners, and in determining the effectiveness of instruction.

Conditions of Use

Three different people complete this instrument--the data collector, an administrator, and a colleague (lead teacher, department head, head teacher, or a senior staff member). Each will need to have access to the classroom used by the teacher and an opportunity to examine a portfolio of materials prepared by the teacher (see the Supplementary Instructions) for a short period of instruction (3 to 10 days). The teacher should be given a list of materials to draw together in the portfolio at least one week before the instrument is completed by any of the three respondents. The teacher should also be available at the time these materials are examined to provide additional information as requested.

Those persons completing this instrument should respond to the items on the basis of all the information they have available. Each will have examined the portfolio of materials and interviewed the teacher. Usually the data collector will have information from only this one occasion, the administrator and colleague should respond based on all other information they have as well. If any person using the instrument has previously completed an assessment of the teacher, responses on the instrument should be based only on observations of and knowledge about the teacher since the last assessment was completed. Any behavior on the instrument that has not been observed during that time should be left blank on the response sheet.

Examining materials and asking questions are the ways to obtain information on each item of the instrument. Information concerning items 1-7 will come primarily from the portfolio. Information on items 8-14 will come primarily from asking questions of the teacher. But, questions should be asked to clarify information in the portfolio and materials and records should be examined to verify or clarify verbal explanations.

To insure fairness, assessment instruments should be completed by keeping in mind such factors as the resources available to teachers, the students that they teach, and the facilities in schools. Teachers are rated on what they do but should not be rated low for reasons beyond their control.

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*Prepared under a contract with the Georgia Department of Education, Division of Program and Staff Development.

James R. Okey, William R. Capie, Charles E. Johnson
University of Georgia, Athens
1977

Each of the items below is to be rated on a 5-point scale. Descriptors for the scale points on each item are provided on the following pages.

Plans instruction to achieve selected objectives.

- Specifies or selects learning objectives for lessons. 1 ☐
- Specifies or selects teaching procedures for lessons. 2 ☐
- Specifies or selects content, materials, and media for lessons 3 ☐
- Specifies or selects materials and plans for assessing progress of learners 4 ☐

Organizes instruction to take into account individual differences among learners.

- Organizes instruction to take into account differences among learners in their capabilities 5 ☐
- Organizes instruction to take into account differences among learners in their learning styles. 6 ☐
- Organizes instruction to take into account differences among learners in their rates of learning. 7 ☐

Obtains information about the needs and progress of individual learners.

- Obtains information about learners from standardized test results and cumulative records. 8 ☐
- Uses teacher-made tests to obtain information about learner progress. 9 ☐
- Communicates with individual learners about their needs and progress. 10 ☐

Refers learners with special problems to specialists.

- Identifies learners who require the assistance of specialists. 11 ☐
- Obtains information about and assistance with learners from co-workers and parents. 12 ☐

Uses information about the effectiveness of instruction to revise it when necessary.

- Uses test results and teacher observation data to obtain information on the effectiveness of instruction. 13 ☐
- Uses data to revise instruction when needed. 14 ☐

Teaching Plans and Materials
Supplementary Instructions for Teachers

As part of the assessment process it is essential to examine the plans and materials prepared for a short instructional unit of about 3 to 10 days. The persons completing the assessment will need to examine these and ask questions in order to complete the Teaching Plans and Materials instrument.

To aid this process, you will need to assemble a portfolio of materials for the unit that includes the following:

1. Written objectives for students
2. Copies of all tests or quizzes
3. Copies or descriptions of materials to be used (e.g., handouts, study guides, information handouts, transparencies, etc.). Materials such as films, library books, and laboratory equipment can be referred to and not placed in the portfolio.
4. Descriptions of instructional procedures to be followed
5. Assignments for learners.

The purpose of preparing the portfolio is to aid an outsider in understanding what has been planned for a unit. You need to convey through the materials in the portfolio what you intend to teach, how you intend to teach it, and how you will know if it has been accomplished.

A number of items (specifically items 8 through 14) on the Teaching Plans and Materials instrument are completed by asking teachers questions about the practices they follow. Anticipate questions related to these items and be prepared to show such things as scores, record sheets, and old plans to clarify your responses. You may also be asked to clarify or explain information contained in the portfolio of plans for a unit.

Teaching Plans and Materials
Scale Descriptors

1. Specifies or selects learning objectives for lessons.

   1. The instructional plans include no goals or objectives.

   2. The plans include a statement of objectives (either expressive encounters or performance outcomes) which are written in broad terms. Many of the objectives seem questionable for the topic and the learners. Objectives that could and should have been used with the unit are missing.

   3. The plans include objectives which have been stated in terms that with only a few exceptions are appropriate for the topic and the learners. The objectives provide for both the acquisition and application of information.

   4. The objectives are highly appropriate to the unit and to the learners. There is clear evidence that the teacher intends to have students not only learn but apply what they know.

   5. In addition to the items included in #4, a sequence chart for the objectives has been prepared. A high degree of application and use of information is conveyed by the objectives.

2. Specifies or selects teaching procedures for lessons.

   1. No plans are evident that specify teaching procedures for the lessons.

   2. The plans include a limited number of teaching procedures but no effort has been made to key them to specific objectives.

   3. Teaching procedures are matched with the objectives to be covered. There are only a few instances where procedures are not appropriate for objectives.

   4. Teaching procedures have been specified and are keyed to the objectives. Procedures ranging from teacher-centered to learner-centered approaches are used.

   5. Teaching procedures have been specified and keyed to the objectives. Strategies are varied and highly suited to the objectives and the learners.

3. Specifies or selects content, materials, and media for lessons.

   1. No plans for using content, materials, and media have been made.

   2. The plans include a listing of the content, materials, and media to be used but they are not referenced to objectives. Many pertinent resources that are available are not used.

   3. The content, materials, and media needed for each lesson are listed for each learning activity. Most resources that are available and pertinent to the lesson are used.

   4. The content, materials, and media are listed for each learning activity and referenced to the objectives. Full use is made of available resources. Some attempt has been made to supplement these with materials prepared by the teacher.

   5. The content, materials, and media are listed for each learning activity and objective along with a description of how they will be incorporated into the lesson. Full use of available resources is made. The instructions include an imaginative use of resources and the inclusion of original resources prepared by the teacher.

4. Specifies or selects materials and plans for assessing progress of learners.

   1. There are no plans or materials for assessing learner progress.

   2. The instructional materials include a plan for assessing learner progress that stipulates the number and kind of progress tests to be given and a time schedule for these.

   3. The plan for assessing learner progress includes the information in #2 above. Tests referenced to the cognitive objectives are also available. Test item formats appropriate to the objectives are called for.

   4. The assessment plan includes the information in #3 above. Materials and plans are also available for assessing the attitude of learners toward the topic and the instructionla setting. Record forms are available to provide a record of individual progress on individual objectives.

   5. In addition to the information in #4 above, imaginative and original plans for progress assessment (such as interviews and self tests) are in evidence.

5. Organizes instruction to take into account differences among learners in their capabilities.

1.
2.
3.
4.
5.

Four practices can be used or not used in the classroom.

a. present instruction is based on an assessment of past performance or ability
b. assignments for learners are differentiated according to ability
c. alternate materials (pitched at different ability levels) are available to achieve objectives
d. remedial and enrichment materials are available for the unit.

If the teacher demonstrates none of the listed practices, rate the teacher "1". If the teacher is observed to use one of these practices appropriately rate the teacher "2". Use a "3" rating if two of the practices are used; a "4" if three are used; and a "5" if all four are appropriately used.

6. Organizes instruction to take into account differences among learners in their learning styles.

1.
2.
3.
4.
5.

Four practices can be used or not used in the classroom.

a. alternative resources are available for achieving objectives
b. alternative procedures (group structure or teacher presentation method) are available for achieving objectives
c. learners are given options inresponding to assignments (e.g., writing, drawing, verbalizing)
d. learners are matched with resources and procedures based on previous performance, consultation with learners, or results of a learning style inventory.

If the teacher demonstrates none of the listed practices, rate the teacher "1". If the teacher is observed to use one of these practices appropriately rate the teacher "2". Use a "3" rating if two of the practices are used; a "4" if three are used; and a "5" if all four are appropriately used.

7. Organizes instruction to take into account differences among learners in their rates of learning.

1.
2.
3.
4.
5.

Four practices can be used or not used in the classroom.

a. self-paced learning is available for some of the objectives some of the time
b. special assistance (e.g., teacher or peer tutoring) is available for slow learners
c. alternative assignments are available for fast learners (e.g., either an opportunity to work on other things or enrichment assignments)
d. objectives are differentiated between a core that all learners should achieve and enrichment objectives that are desirable but not essential.

If the teacher demonstrates none of the listed practices, rate the teacher "1". If the teacher is observed to use one of these practices appropriately rate the teacher "2". Use a "3" rating if two of the practices are used; a "4" if three are used; and a "5" if all four are appropriately used.

8. Obtains information about learners from standardized test results and cumulative records.

   1. The teacher has no information on such characteristics as the aptitude achievement level, or learning styles of learners.

   2. The teacher has obtained information on particular learners only after someone (e.g., a parent or guidance counselor) has brought a problem to his or her attention.

   3. The teacher has made an independent effort to obtain information on learners in his or her classes to determine information such as their past performance on course work and ability level.

   4. The teacher has gone beyond the examination of data to determine the general nature of the classes. Standardized test results and cumulative records have been used to seek probable causes for problems identified with the class as a whole or some learners in particular.

   5. In addition to the items in #4, the teacher can explain how his or her classes or individual learners performed in relation to local or national norms.

9. Uses teacher-made tests to obtain information about learner progress.

   1. No tests to assess the progress of learners are used.

   2. End-of-unit progress tests on cognitive outcomes are used. The test results are available only in total score format.

   3. Tests are used to provide frequent feedback to the teacher on the progress of learners.

   4. Both cognitive and affective tests are used to provide frequent feedback to the teacher and learners.

   5. In addition to the items in #4, the teacher breaks down test scores to reveal individual learner progress on individual objectives as well as total class progress.

10. Communicates with individual learners about their needs and progress.

    1. No effort to identify learner needs is evident. Feedback to learners is provided only on end-of-term reports.

    2. The learners receive regular feedback in the form of test and homework scores and grades. No formal effort is made to assist learners in the identification of specific problems.

    3. The learners receive regular feedback on their achievement on tests and other assignments. The feedback also includes a breakdown of where they are excelling or failing to achieve and probable causes. Personal assistance is offered to all learners who want to improve their achievement.

    4. In addition to the items in #3, the teacher used progress tests which provide an opportunity for learners to assess their achievement on the objectives before the end-of-unit achievement test is administered.

    5. In addition to the items in #4, the teacher identifies the prerequisite skills needed for a unit and diagnoses their possession of these skills.

11. Identifies learners who require the assistance of specialists.

    1. The teacher does not seem to be aware of learner problems which might require the assistance of specialists (e.g., a counselor, psychologist, or medical assistant).

    2. The teacher has identified specific learner problems which require the assistance of specialists but has made no effort to refer the learner ordiscuss the problem with a specialist.

    3. The teacher has identified specific learner problems which require the assistance of specialists and has made the proper referrals.

    4. In addition to the items in #3, the teacher has discussed the results of the referral with specialists in an attempt to establish the teacher's role in assisting the learner.

    5. In addition to the items in #4, there is evidence that an attempt has been made to fulfill this role.

12. Obtains information about and assistance with learners from co-workers and parents.

1. There is no evidence that information about or assistance with learners has been obtained.

2. Specific problems with learners have been identified where outside help is needed. Discussions with co-workers or parents have been held. No action has been taken.

3. Information about and assistance with learners have been accepted by the teacher and used in the classroom.

4. The teacher has helped organize and participated in staff and parent conferences to consider learner problems. Actions based on these meetings have been taken.

5. In addition to the items in #4, the teacher routinely apprises parents of the progress of learners and provides guidance on how the home can assist the school.

13. Uses test results and observation data to obtain information on the effectiveness of instruction.

1. The teacher does not maintain test data to be used for evaluating the effectiveness of instruction. No other evaluation system is employed (e.g., interviews of learners, peer conference, or observation of instruction).

2. The teacher maintains records on the general success of learners on each instructional unit.

3. In addition to the items in #2, the teacher attempts to collect information on instructional effectiveness on the basis of reflection and learner reactions.

4. In addition to the items in #3, the teacher personally obtains information on his or her instruction using such means as video or audio recorders or check lists.

5. In addition to the items in #4, the teacher has arranged on a periodic basis with peers and/or administrators to provide feedback on the methods or results of instruction.

14. Uses data to revise instruction when needed.

1. No efforts or plans to revise instruction are evident.

2. There is evidence that instruction is revised but the basis for revision is not apparent.

3. There is evidence that instruction is revised on the basis of feedback from the personal observations of the teacher and from data collected from pupils.

4. In addition to the items in #3, the teacher uses data collected with such devices as video or audio recorders to make revisions.

5. In addition to the items in #4, the teacher uses the periodic feedback from peers and/or administrators on the instructional procedures used in the classroom and the results produced with learners to revise instruction.

Teacher Performance Assessment Instruments*

CLASSROOM PROCEDURES

Trial Edition

Purpose

The purpose of this instrument is to guide the assessment of teachers' cognitive interaction with learners, their skill in organizing and presenting instruction, and their skills in classroom management.

Conditions of Use

Three different people complete this instrument--the data collector, an administrator, and a colleague (lead teacher, department head, head teacher, or a senior staff member). These people will need to have access to the classroom of the teacher for at least one class period and longer if they desire.

Those persons completing this instrument should respond to items on the basis of all the information they have available. Each will have spent at least one class period with the teacher and students. Usually the data collector will have information from only this one occasion; the administrator and colleague should respond based on all other information they have as well. If any person using this instrument has previously completed an assessment of the teacher, responses on the instrument should be based only on observations of and knowledge about the teacher since the last assessment was completed. Any behavior on the instrument that has not been observed during that time should be left blank on the response sheet.

Classroom observation is the primary means for obtaining information to complete this instrument. However, the observer may need to ask questions of the teacher to verify or clarify observations. The same observation period can provide information for completing this instrument and the Interpersonal Skills instrument.

To insure fairness, assessment instruments should be completed by keeping in mind such factors as the resources available to teachers, the students that they teach, and the facilities in schools. Teachers are rated on what they do but should not be rated low for reasons beyond their control.

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*Prepared under a contract with the Georgia Department of Education, Division of Program and Staff Development.

James R. Okey, William R. Capie, Charles E. Johnson
University of Georgia, Athens
1977

Each of the items below is to be rated on a 5-point scale. Descriptors for the scale points on each item are provided on the following pages.

Uses instructional techniques, methods, and media related to the objectives.

- Operates audiovisual and other instructional equipment. 1 ☐
- Uses materials compatible with the range of learner abilities. 2 ☐
- Uses instructional materials that provide appropriate practice on the objectives. 3 ☐
- Provides experiences in which learners apply what they have learned. 4 ☐
- Organizes learning activities sequentially and logically. 5 ☐

Communicates with learners both orally and in writing.

- Gives clear directions and explanations. 6 ☐
- Communicates to learners the purpose of learning activities and their relation to past and future events. 7 ☐
- Seeks and responds to learners questions during explanations. 8 ☐
- Provides directions and explanations using different words and ideas when learners misunderstand. 9 ☐
- Communicates the impression that the teacher knows what is to be done and has a means of doing it. 10 ☐

Reinforces and encourages the efforts of learners.

- Receives, accepts, and uses ideas from learners as part of the teaching procedures. 11 ☐
- Encourages learners to elaborate on their responses. 12 ☐
- Provides learners with opportunities for participating. 13 ☐

Demonstrates a repertoire of teaching methods and techniques.

- Demonstrates ability to work with individuals, small groups, and large groups. 14 ☐
- Demonstrates ability to conduct lessons using a variety of methods and techniques. 15 ☐
- Selects teaching methods appropriate for objectives and learners. 16 ☐
- Uses questions at a variety of cognitive levels. 17 ☐

Uses procedures which involve the learner in the instruction.

- Uses procedures which initially get learners involved in tasks. 18 ☐
- Maintains learner involvement in tasks. 19 ☐
- Provides feedback to learners on their progress. 20 ☐

Demonstrates skill with and understanding of the school subject being taught.

- Demonstrates skills and thought processes important to the subject. 21 ☐
- Presents up-to-date information about the topic being taught. 22 ☐
- Provides learners with information about the importance of specific topics. 23 ☐

Organizes time, space, materials, and equipment for instruction.

- Adjusts ventilation, temperature, and lighting in the room, if applicable. 24 ☐
- Plans for routine tasks. 25 ☐
- Organizes materials and time for efficient use by learners. 26 ☐
- Provides a learning environment that is attractive, orderly and safe. 27 ☐

Adjusts instruction to individual learners and to changes in conditions.

- Uses current events or unexpected happenings to supplement lessons. 28 ☐
- Encourages individual learners to undertake special projects. 29 ☐
- Remains calm and poised as adjustments to lessons are made. 30 ☐

Classroom Procedures
Scale Descriptors

1. Operates audiovisual and other instructional equipment.

   1. Audiovisual (e.g., projectors, chalkboard) and other (e.g., duplicator transparency maker) equipment that is available and appropriate is not used.

   2. Occasionally uses available equipment. Has trouble with it when doing so. Media presentations or prepared materials don't always fit planned lessons.

   3. Usually uses audiovisual equipment at appropriate times in lessons. Shows evidence of mastering the operation of most machines.

   4. Highly skillful use of audiovisual equipment at appropriate times. Media presented blend smoothly with other kinds of instruction.

   5. In addition to the activities described in #4, the teacher shows evidence of skillfully planning and presenting original materials using audiovisual or other equipment.

2. Uses materials compatible with the range of learner abilities.

   1. Materials (e.g., texts, films) are inappropriate for nearly all learners. They are well above or below the capabilities of learners.

   2. Materials are suited to at least a majority of the learners. Some learners have difficulty using them or find them beneath their ability.

   3. Only a few students are unable to comprehend the materials or find them too easy.

   4. A variety of materials are used that are at levels suitable to the individual abilities of learners. No instances of materials incompatible with learner abilities are noted.

   5. In addition to the items in #4, materials prepared by the teacher (in addition to those commercially prepared) are in use that show a high degree of effort and originality.

3. Uses instructional materials that provide appropriate practice on objectives.

   1. Materials chosen are irrelevant to the topic or objectives.

   2. Materials chosen are related to the topics being studied but not to the objectives.

   3. Most materials chosen provide for practice on specific objectives. Additional irrelevant practice may also be included. Some of the practice may be insufficient in quantity to achieve the objectives.

   4. Materials chosen are entirely pertinent to objectives. They are the basis for activities relevant to objectives. Learners are given ample opportunity to practice and achieve the objectives.

   5. In addition to the items in #4, the teacher routinely uses either formal or informal progress assessment techniques to determine whether the practice individual learners receive is sufficient.

4. Provides experiences in which learners apply what they have learned.

   1. Knowledge is never applied. Facts and skills are acquired in isolation from their application.

   2. Application of knowledge is used sparingly in the classroom. Opportunities for applying knowledge are often not used.

   3. Application of knowledge is provided for in daily lessons on at least half the occasions when it would be reasonable to do so.

   4. Only rarely is an opportunity for applying knowledge not taken advantage of in the classroom.

   5. In addition to the items in #4, the teacher provides and encourages novel opportunities for applying knowledge in and outside the classroom for the class or individual learners.

5. Organizes learning activities sequentially and logically.

   1. Activities used in the classroom are unrelated to one another and to the objectives.

   2. Activities relate to a common topic within lessons but many activities seem out of sequence.

   3. Activities are arranged to present ideas from simple to complex so that one builds on another. Only occasionally are there problems of sequence.

   4. No instances of problems in sequencing learning activities are noted.

   5. In addition to the items in #4, activities also provide opportunity to acquire prerequisites if learners have not already done so. A sequence chart of objectives has been prepared to guide instruction.

6. Gives clear directions and explanations.

   1. Fails to give any directions and explanations (either written or oral) when there is an obvious need to do so.

   2. Directions and explantions are given that are hard to understand. Most learners appear confused. No attempt is made to remedy the problems of confusion.

   3. The teacher attempts to clarify any confusion in directions or explanations with additional communications. Only a few learners then appear to not understand.

   4. No evidence of learner confusion about directions and explanations is evident. Learners appear to understand what they are to do and how they are to do it.

   5. In addition to the items in #4, the teacher checks to see that learners have understood communications by asking questions about the directions or explanations.

7. Communicates to learners the purpose of learning activities and their relationship to past and future events.

   1. The teacher fails to communicate either implicitly or explicitly the reason for importance of an activity.

   2. The teacher communicates to learners that what they are doing is important but fails to indicate how or why.

   3. The teacher uses one reason or a combination of reasons (exhortation, external motivation, utilitarian purpose, or internal motivation) to communicate the purpose of an activity.

   4. In addition to the items in #3, the teacher places activities in context by showing how they relate to past and future events.

   5. In addition to the items in #4, the teacher encourages learners to articulate the purpose of activities and their relationship to past and future events.

8. Seeks and responds to learners questions during explanations.

   1. The teacher discourages questions by reprimanding learners who raise them.

   2. The teacher ignores the questions of learners during explanations but shows no hostile behavior.

   3. The teacher responds to learners who wish to be recognized. Responses by the teacher are brief but adequate.

   4. In addition to the items in #3, the teacher asks the learners for questions infrequently during but always at the end of an activity.

   5. In addition to the items in #4, the teacher frequently asks learners for questions. The teacher may attempt to understand the reason or background for a question while responding.

9. Provides directions and explanations using different words and ideas when learners misunderstand.

   1. The teacher discourages learners when they seek clarification on directions or explanations.

   2. The teacher says things once and expects learners to understand even when they seek clarification.

   3. The teacher will restate original communication in nearly the same words or in a somewhat abbreviated form if learners do not understand.

   4. The teacher repeats directions and explanations using different words and ideas when learners show that they do not understand.

   5. In addition to the items in #4, the teacher attempts to identify areas of misunderstanding before repeating communication.

10. Communicates the impression that the teacher knows what is to be done and has a means of doing it.

   1. The teacher appears to be making moment-to-moment decisions about what is to be done next.

   2. The teacher appears to know what is to be done but has not taken care to gather materials necessary for tasks.

   3. Only occasionally is the impression given of not knowing what is to be done.

   4. The teacher has definite goals and plans for activities that are communicated to learners.

   5. The teacher indicates how present plans and activities fit into longer range goals and plans. The teacher conveys the impression of a top-notch professional at work.

11. Receives, accepts, and uses ideas from learners as part of the teaching procedures.

    1. The teacher either ignores or actively discourages learners from giving their ideas by negative words or actions.

    2. The teacher acknowledges learners who obviously wish to be recognized. Learner contributions are accepted without disagreement or further comment.

    3. The teacher acknowledges learners who obviously wish to be recognized and occasionally asks for learner comments. The teacher agrees with the learner if appropriate.

    4. In addition to the items in #3, the teacher frequently incorporates learner ideas and comments into the subsequent activities.

    5. In addition to the items in #4, the teacher is sufficiently skillful at accepting and using ideas from learners that to the casual observer it may appear that learners are leading the lesson along.

12. Encourages learners to elaborate on their responses.

    1. The teacher discourages learners (with commands, looks, etc.) from making or elaborating on responses.

    2. The teacher listens to learners and accepts their contributions without disagreement or further comment.

    3. The teacher listens to learners and agrees with them if appropriate.

    4. The teacher listens to learners and asks general questions such as "Do you really think so?" or "How did you get your answer?"

    5. The teacher listens to learners, accepts their comments, and then requests clarification or elaboration by asking "I'd like to hear more about that," or some similiar comment.

13. Provides learners with opportunities for participating.

    1. Class activities require passive commitment from learners--sitting and listening, reading, or watching.

    2. The class is organized so that only a few learners participate actively, most appear to be bystanders.

    3. Most learners have opportunity for active participation at some time in the class--small group discussion, physical manipulation of materials, physical movement, individual library work, etc.

    4. All learners have opportunity for active participation in some type of activity daily.

    5. All learners have multiple opportunities for active participation in activities each day.

14. Demonstrates ability to work with individuals, small groups, and large groups.

1. 2. 3. 4. 5.

Four practices can be followed or not followed in the classroom.

a. the mode of instruction is matched to the objective
b. the teacher skillfully manages the role appropriate to the mode being used
c. the transitions from one mode of instruction to another are smooth
d. multiple modes of instruction are used that are matched to the objectives.

If the teacher demonstrates none of the listed practices, rate the teacher "1". If the teacher is observed to use one of these practices appropriately, rate the teacher "2". Use a "3" rating if two of the practices are used; a "4" if three are used; and a "5" if all four are appropriately used.

15. Demonstrates ability to conduct lessons using such methods as drill and practice, inquiry, discussion, exposition, and problem solving.

1. 2. 3. 4. 5.

Select "1" if the teacher uses no teaching method in an acceptable manner. If the teacher uses one method appropriately, rate the teacher "2". Use a "3" rating if two methods are used appropriately, a "4" if three are used, and a "5" if four methods are used adequately.

16. Selects teaching methods appropriate for objectives and learners.

1. 2. 3. 4. 5.

Four practices can be followed or not followed in the classroom.

a. teaching methods are matched to objectives
b. teaching methods are matched to learners
c. a variety of teaching methods are employed
d. a smooth transition is made from one method to another.

If the teacher demonstrates none of the listed practices, rate the teacher "1". If the teacher is observed to use one of these practices appropriately, rate the teacher "2". Use a "3" rating if two of the practices are used; a "4" if three are used; and a "5" if all four are appropriately used.

17. Uses questions at a variety of cognitive levels.

1.
2.
3.
4.
5.

Four practices can be used or not used in the classroom.

a. questions are appropriate for the objectives
b. questions are sequenced from simple to complex and build on one another
c. a variety of levels of thought are required of learners by the questions
d. learners are given adequate time to answer questions.

If the teacher demonstrates none of the listed practices, rate the teacher "1". If the teacher is observed to use one of these practices appropriately rate the teacher "2". Use a "3" rating if two of the practices are used; a "4" if three are used; and a "5" if all four are appropriately used.

18. Uses procedures which initially get learners involved in learning tasks.

1. The teacher makes no effort to review information or recapture interest or motivation.

2. The teacher makes a common task the focus for beginning the lesson--e.g., read, write, do, etc.

3. The teacher helps learners recall experiences which are related to the learning activity and indicates how the learners can relate this knowledge or experience to the upcoming task.

4. The teacher uses interest of learners as a tie into new learning activities.

5. Teacher stimulates interest of learners by using a problem situation, curiosity, a discrepant event, etc. as the focus for beginning a lesson.

19. Maintains student involvement in learning tasks.

1. Most learners (75%) seem to be off task (learners are not attending to the teacher, materials, or other appropriate focus for an activity).

2. Many learners (50%) are on task but the remainder show only superficial attention to lessons.

3. Most learners (75%) are on task (actively engaged in the lesson).

4. High on-task (90%) behavior is evident.

5. Only rarely are any learners not involved in learning tasks.

20. Provides feedback to learners on their progress.

1. No feedback is provided to learners except results from periodic unit tests.

2. Feedback to learners is infrequently given and mostly negative.

3. The teacher provides frequent feedback to learners through some combinations of written comments on assignments and test results. Both positive and negative comments are given.

4. In addition to frequent verbal and written comments the teacher uses frequent progress tests to show learners how they are performing.

5. In addition to the items in #4, expectations of progress are made clear to learners. The teacher helps individual learners assess their progress in relation to the expectations.

21. Demonstrates skills and thought processes important to carrying out activities and projects related to the subject.

1. Skills and thought processes used by the teacher are inaccurate, out-of-date, or unrelated to the subject.

2. The teacher uses no skills or thought processes important in the subject area.

3. The teacher allows learners to acquire skills or thought processes on their own. A skill or thought process may be pointed out or described to learners but not explained or demonstrated.

4. The teacher demonstrates skills or thought processes on most occasions when it would be appropriate to do so. A few additional occasions are available for doing this but are not used.

5. The teacher routinely demonstrates skills and thought processes important to the lesson. Sufficient examples are given to help most learners in acquiring the skills or processes.

22. Presents up-to-date information about the topic being taught.

1. Information presented to learners is clearly inaccurate or the topic is inconsistent with what is currently considered appropriate for the level taught.

2. Some information is inaccurate or the topic inconsistent with what is currently considered appropriate.

3. Inaccurate information is minimal. Sources of information and curriculum are timely.

4. Regular text or other curriculum material is supplemented with recent newspaper, journal or other information.

5. A variety of resources are used to make classroom information up to date. The teacher helps learners understand how information (knowledge, values, procedures, etc.) in the topic area has changed over the years.

23. Provides learners with information about the importance of specific topics in a larger view of the subject area.

1. The teacher designates the importance of a topic.

2. The teacher fails to relate many specific topics to their importance in a content area.

3. The importance of most topics studied is conveyed to learners.

4. Topics are taught in context. The teacher routinely shows how daily topics are but a portion of a larger subject area.

5. In addition to the items in #4, the teacher provides opportunities for and encourages learners to either question or relate how specific topics are of importance to a subject area.

24. Adjusts ventilation, temperatures, and lighting in the room.

1. Severe environmental problems are ignored when it would be possible to remedy them.

2. The teacher attempts to control the classroom environment but often makes inappropriate adjustments.

3. Adjustments in the environment that are in the control of the teacher are only occasionally mishandled.

4. The teacher arranges the classroom so that the environment is optimal for the various activities planned. Anticipates interference (e.g., doesn't sit child next to hot radiator or noisy air conditioner) and compensates for it.

5. In addition to the items in #4, makes all possible adjustments to the environment to make it optimal for learning. Capitalizes on variations in micro-environment in setting up plant window, investigating temperature variants, etc.

25. Plans for routine tasks.

1. The teacher frequently forgets that routine tasks need attention.

2. The teacher attends to routine tasks in a disruptive or inefficient fasion (e.g., all learners stop working 15 minutes before the end of a period or learners need special permission for many routine tasks).

3. The teacher anticipates routine tasks and attends to them efficiently. Not all work stops for everyone while some are being accommodated.

4. The teacher establishes, with assistance from learners, policies regarding routine tasks.

5. In addition to #4, learners are responsible for various dimensions of the tasks (e.g., distributing materials, picking up work area, etc.).

26. Organizes materials and time for efficient use by learners.

1. Does not anticipate need for material until immediate need arises. Frequently, necessary materials are not in hand. No time plan is evident.

2. Finding materials often causes a delay in instruction. A time plan is being followed but there are obvious problems with it.

3. Necessary materials are available for quick distribution to learners. A time plan for events is made clear to learners.

4. Learners are acquainted with the materials system in the classroom and can accommodate themselves in most instances. Adjustments to the time plan are made as needed.

5. Learners are responsible for the organization of materials once the system is set up. Both taking and returning materials are learner responsibilities as is assuming their maintenance. The class runs smoothly--everything seems to go like clock work.

27. Provides a learning environment that is attractive, interesting, orderly, and safe.

1. Organization of furniture and materials is haphazard. Dirt and litter are common. Bulletin boards are barren or out of date. Safety hazards such as blocked doors, exposed switches, and uncovered chemicals are in evidence.

2. Furniture is arranged in an orderly fashion but materials are disorganized. Dirt and litter are common. Bulletin boards are more decorative than instructional. No obvious safety hazards are evident.

3. Furniture is orderly. Materials are stored in a neat and orderly but useful fashion. Plants, animals, displays, posters, or bulletin boards make the room seem interesting.

4. In addition to the items in #3, bulletin boards and displays are used for current information, instruction, or recognition of learners. Most management is teacher controlled.

5. In addition to the items in #4 (with the exception of teacher controlled management), learners assume large responsibility for maintaining orderly materials, preparing decorative and instructional displays, and monitoring safety.

28. Uses current events or unexpected happenings to supplement regularly planned lessons.

1. The teacher discourages digressions from the routine to consider current or unexpected events.

2. The teacher acknowledges current or unexpected happenings only when they disrupt the routine so much that continuing is difficult.

3. The teacher provides a regular opportunity to discuss current events and unexpected happenings when they occur.

4. The teacher tries to make discussing current events a frequent part of the program. When unexpected events occur, they are handled in a way that acknowledges their importance without overly disrupting the ongoing program.

5. In addition to the items in #4, learners are encouraged to locate or identify current events and unexpected happenings that relate to the ongoing program whenever possible.

29. Encourages individual learners to undertake special projects.

1. Special projects by individual learners are discouraged by directives or other actions.

2. Special projects are not encouraged by the teacher but are allowed and acknowledged.

3. Special projects are often used in connection with units. The sense that projects are required to do well in the course is stronger than the sense that projects are encouraged and will be beneficial to individuals.

4. The same as #3, except that the benefits to individuals of doing projects is emphasized more than the necessity of doing them.

5. The teacher tries to help individuals identify special interests and projects pertinent to them.

30. Remains calm and poised as adjustments to lessons are made.

1. The teacher insists on pursuing a lesson as planned in spite of an obvious need for modification.

2. The teacher modifies a lesson but the change is not handled smoothly and causes disruption to instruction.

3. Adjustments to lessons are handled smoothly with minimum disruption. Learners recognize that adjustments are being made.

4. Adjustments to lessons are handled so that only someone acquainted with the plans would know they are taking place.

5. In addition to the items in #4, the teacher capitalizes on the events that make adjustments to lessons necessary and uses them to enhance learning.

Teacher Performance Assessment Instruments*

INTERPERSONAL SKILLS

Trial Edition

Purpose

The purpose of this instrument is to guide the assessment of the classroom climate or environment maintained by a teacher. One focus of the instrument is on teacher characteristics such as enthusiasm, warmth, and patience. Another part of the instrument is concerned with the procedures teachers use to discourage disruptive behavior and to manage disruptions when they occur.

Conditions of Use

Three different people complete this instrument--the data collector, an administrator, and a colleague (lead teacher, department head, head teacher, or a senior staff member). These people will need to have access to the classroom of the teacher for at least one class period and longer if they desire.

Those persons completing this instrument should respond to items on the basis of all the information they have available. Each will have spent at least one class period with the teacher and students. Usually the data collector will have information from only this one occasion; the administrator and colleague should respond based on all other information they have as well. If any person using this instrumnet has previously completed an assessment of the teacher, responses on the instrument should be based only on observations of and knowledge about the teacher since the last assessment was completed. Any behavior on the instrument that has not been observed during that time should be left blank on the response sheet.

Classroom observation is the primary means for obtaining information to complete this instrument. However, the observer may need to ask questions of the teacher to verify or clarify observations. The same observation period can provide information for completing this instrument and the Classroom Procedures instrument.

To insure fairness, assessment instruments should be completed by keeping in mind such factors as the resources available to teachers, the students that they teach, and the facilities in schools. Teachers are rated on what they do but should not be rated low for reasons beyond their control.

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*Prepared under a contract with the Georgia Department of Education, Division of Program and Staff Development.

James R. Okey, William R. Capie, Charles E. Johnson
University of Georgia, Athens
1977

Each of the items below is to be rated on a 5-point scale. Descriptors of the activities associated with each item are given on the following pages. If there has been no or insufficient opportunity to observe a particular performance, leave the item blank. The number selected from the scale below should reflect two factors--how many of the behaviors associated with an item are exhibited and the portion of time the behaviors are used appropriately. For example, a teacher who used only one of the several behaviors listed for an item and always used it appropriately would still be rated low.

5 - 81% or higher
4 - 61-80%
3 - 41-60%
2 - 21-40%
1 - 20% or less

Demonstrates enthusiasm for teaching and learning and the subject being taught.

- Communicates personal enthusiasm. 1 ☐
- Communicates with learners in a way that conveys interest in them and the subject. 2 ☐

Helps learners develop positive concepts of themselves.

- Provides feedback to learners about their behavior. 3 ☐
- Demonstrates warmth and friendliness. 4 ☐
- Demonstrates sensitivity to the needs and feelings of learners. 5 ☐
- Provides learners with opportunity for success. 6 ☐
- Demonstrates patience, empathy, and understanding. 7 ☐

Manages interaction in the classroom so as to discourage the occurrence of disruptive behavior.

- Uses communication techniques that foster comfortable interpersonal relationships. 8 ☐
- Uses techniques to maintain appropriate behavior. 9 ☐
- Establishes rules for class conduct. 10 ☐

Manages disruptive behavior among learners.

- Manages disruptive behavior and conflicts among learners objectively. 11 ☐
- Manages behavior problems in accordance with school policies. 12 ☐

Interpersonal Skills
Scale Descriptors

1. Communicates personal enthusiasm.

   The voice of the teacher is raised or lowered to stress particular points or to introduce an element of surprise. Facial expressions are animated. The teacher smiles when looking at students. There is an absence of disapproving frowns or stares. The arms, legs, head, etc. of the teacher are used to accentuate points.

2. Communicates with learners in a way that conveys interest in them and the subject.

   The teacher energetically describes and reminds learners of the importance of the subject matter. Personal examples and experiences of others that are related to the topic are mentioned throughout class discussions. The teacher builds on and develops ideas suggested by learners. The teacher listens to, accepts, and acts upon responses from learners.

3. Provides feedback to learners about their behavior.

   The teacher talks to learners about their actions in the classroom free from personal derogatory references. Clear information about the appropriateness of the activity of learners is given. The teacher provides verbal and nonverbal encouragement for productive and supportive classroom behavior.

4. Demonstrates warmth and friendliness.

   The teacher stands or sits close to learners, maintaining eye contact throughout the conversation. This teacher interacts with learners by laughing with them, calling them by name, and seeking additional information about their interests and opinions. No communication barriers, either physical or intellectual, are placed between the teacher and learners.

5. Demonstrates sensitivity to the needs and feelings of learners.

   The teacher listens to and accepts ideas from learners. Learners are encouraged to express their feelings. The teacher talks to learners on a one-to-one basis or looks at their work while they are on hand to answer or to ask questions.

6. Provides learners with opportunity for success.

   The teacher schedules assignments so that learners are able to master one task before going on to the next. Instructional techniques are used that encourage participation of all learners. The teacher provides help for learners by personally assisting them, using peer or parent tutors, using alternative materials, assigning tasks suited to the ability of the learners, or allowing additional time for learners to complete assignments.

7. Demonstrates patience, empathy, and understanding.

The teacher listens to problems of learners. The teacher shows learners, either by words or actions, that the feelings conveyed in their comments are accepted. Evaluative remarks such as "That's not a very serious problem" or "Why worry about that" are avoided. The teacher appears to understand the learner's point of view by accepting reasonable explanations for unusual answers, late work, or rule violations.

8. Uses communication techniques that foster comfortable interpersonal skills.

The teacher speaks politely with learners. The tone of voice is pleasant and nonthreatening. The teacher enhances the possibility of courteous interchanges among learners by exhibiting these behaviors and by reinforcing instances when learners use them with one another.

9. Uses techniques to maintain appropriate behavior.

The teacher uses a variety of incentives in the class. These rewards include such events as social approval, contingent activities, tokens, check marks, or grades.

10. Establishes rules for class conduct.

Classroom rules are made clear by posting or verbally stating them. The teacher answers any questions learners may have regarding the rules. When there is a violation of a rule, the teacher points out to the learner what the rule is that has been broken. School policies and ideas from learners are considered when formulating such rules.

11. Manages disruptive behavior and conflicts among learners objectively.

When a problem arises, the teacher discusses the situation with the learners directly involved. The teacher appears to be fair and impartial; rule violations carry the same consequences for all learners. The teacher attends to significant problems and ignores insignificant ones by distinguishing between minor disruptions of a short term nature and major disruptions that might affect the learning environment or safety of others.

12. Manages behavior problems in accordance with school policies.

The teacher reminds learners of prestated consequences when there is a violation of a rule. The teacher handles problems as they arise and does not look the other way when significant problems occur. The teacher acknowledges that a problem exists and attempts to communicate with those learners involved as soon as possible under the circumstances.

Teacher Performance Assessment Instruments*

PROFESSIONAL STANDARDS

Trial Edition

Purpose

The purpose of this instrument is to obtain information from colleagues and administrators about a teacher. Information is sought about relationships with colleagues, acceptance of professional responsibilities, and efforts to maintain professional skills.

Conditions of Use

The teacher being assessed nominates a fellow teacher and an administrator that have detailed knowledge of the teacher's professional activities to complete this instrument. The chief administrator in the school may name 1 or 2 additional persons to complete the instrument (another colleague, another administrator or both) if there is a question about the objectivity or information available to the original nominees. Thus a minimum of 2 and a maximum of 4 persons complete the instrument.

Those persons completing this instrument should respond to the items on the basis of information they have about the teacher during the current school year. Previous professional activities, either favorable or unfavorable, should be ignored so that the responses on this instrument reflect recent professional activities.

To insure fairness, assessment instruments should be completed by keeping in mind such factors as the resources available to teachers, the students that they teach, and the facilities in schools. Teachers are rated on what they do but should not be rated low for reasons beyond their control.

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*Prepared under a contract with the Georgia Department of Education, Division of Program and Staff Development.

James K. Okey, William R. Capie, Charles E. Johnson
University of Georgia, Athens
1977

Respondents should pay particular attention to two factors:

a. The frequency with which a teacher demonstrates a behavior in large part depends upon the opportunity for performance. To demonstrate a professional attribute only once or twice a year may be entirely acceptable if there were only a few occasions to do this.

b. Ratings should be based on observations of behavior. Be cautious of second- and third-hand accounts of a teacher's activities. Be similarly cautious of basing your ratings on inferences. An activity has either been observed, or it has not been observed.

Each of the items below is to be rated on a 5-point scale. Descriptors of the activities associated with each item are given on the following pages. If you have had no or insufficient opportunity to observe a particular performance, leave the item blank. The number selected from the scale below should reflect two factors--how many of the behaviors associated with an item are exhibited and the portion of time the behaviors are used appropriately. For example, a teacher who used only one of the several behaviors listed for an item and always used it appropriately would still be rated low.

5 - 81% or higher
4 - 61-80%
3 - 41-60%
2 - 21-40%
1 - 20% or less

Demonstrates professional traits of character.

Work cooperatively with co-workers, administrators, and community members. 1 ☐

Shares professional materials, and ideas with co-workers. 2 ☐

Demonstrates ethical behavior. 3 ☐

Demonstrates a positive attitude toward the teaching profession. 4 ☐

Determines professional needs through self-evaluation and engages in a professional self-improvement program.

Participates in in-service functions designed for professional upgrading. 5 ☐

Obtains and evaluates data on professional skills. 6 ☐

Meets professional responsibilities.

Uses journals, books, and meetings to learn about teaching ideas. 7 ☐

Participates in organizations designed to promote professional growth and development. 8 ☐

Participates in school and district activities designed to promote professional growth and development. 9 ☐

Carries out the recommended policies and procedures of the school district. 10 ☐

Uses appropriate methods to change policies and procedures of the school district. 11 ☐

Completes records and reports. 12 ☐

Carries out instructional and extra-instructional duties. 13 ☐

Professional Standards
Scale Descriptors

1. Works cooperatively with co-workers, administrators, and community members.

   The teacher willingly carries out responsibilities that include school staff and community members. Such responsibilities might include cooperative planning of instruction, team teaching, service on curriculum committees, training parent volunteers, or being an active member in parent-teacher groups.

2. Shares professional materials and ideas with co-workers.

   Through conversation, public presentations, or printed materials the teacher both gives and receives ideas for instructional improvement. The ideas may relate to content (e.g., knowledge about a new textbook in science) or pedagogy (e.g., ideas on how to lead a discussion).

3. Demonstrates ethical behavior.

   The teacher demonstrates a clear understanding of right and wrong. In dealings with parents, co-workers, and students,the activities of the teacher conform to accepted professional standards of conduct.

4. Demonstrates a positive attitude toward the teaching profession.

   In contacts with pupils, co-workers, and others, the teacher actively attempts to increase the effectiveness of the teaching profession. The actions need not always be ones with which everyone agrees (e.g., supporting a bargaining arrangement for teacher), but they are done in a positive and principled manner. The teacher is "for" things, not merely "against" the status quo.

5. Participates in in-service functions designed for professional upgrading.

   The teacher attends available (local, regional, and national) events devoted to in-service training to upgrade teaching skills. Tries to identify and upgrade teaching skills that influence learning through personal or cooperative efforts.

6. Obtains and evaluates data on professional skills.

   The teacher collects and uses data on professional skills (e.g., in leading discussions or setting objectives) to upgrade his or her teaching. Student cognitive and affective data on local and standardized tests are used as well to evaluate performance.

7. Uses journals, books, and meetings to learn about teaching ideas.

   The teachers uses personal or other (from library or school) journals and books to keep up with current ideas on teaching. Attends meetings (local, regional, national) that deal with teaching and learning.

8. Participates in organizations designed to promote professional growth and development.

   The teacher holds memberships and participates in organizations (local, regional, national) that promote professionla interests and skills.

9. Participates in school and district activities designed to promote professional growth and development.

   The teacher participates in such activities as planning days, in-service days, and department meetings to promote professional growth and development.

10. Carries out the recommended policies and procedures of the school district.

    The teacher meets his or her contractural obligations. School district directives, policies, and rules are complied with.

11. Uses appropriate methods to change policies and procedures of the school district.

    The teacher follows designated and lawful means of changing district policies and procedures with which he or she disagrees.

12. Completes records and reports.

    The teacher maintains attendance records, grade reports, cumulative folders, and other records or reports required in the school.

13. Carries out instructional and extra-instructional duties.

    Completes classroom and out-of-class responsibilities in a responsible manner.

Teacher Performance Assessment Instruments*

STUDENT PERCEPTIONS

Trial Edition

Purpose

The purpose of these instruments is to obtain the perceptions of students about the cognitive and affective interactions that take place in the classroom.

Conditions of Use

All learners in one or more classes of the teacher being assessed will complete this instrument. The teacher should be out of the room when the learners complete the instrument. Learners in sixth grade or higher complete the form for older learners. All others complete the form for young children. Each item on the form for young learners is read aloud by the data collector to the students. Older learners will ordinarily read the items themselves. However, if there is any question about understanding the items, they may be read to older learners as well.

*Prepared under a contract with the Georgia Department of Education, Division of Program and Staff Development.

James R. Okey, William R. Capie, Charles E. Johnson
University of Georgia, Athens
1977

STUDENT PERCEPTIONS (K-5)

SCHOOL _____

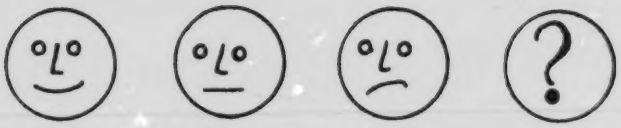
DATE _____

TEACHER _____

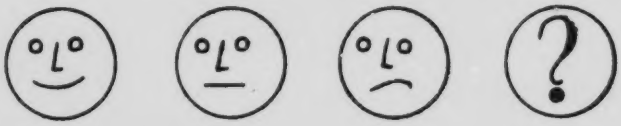
Check the face that is most like your classroom.

1. My teacher uses movies, filmstrips, and records in class.				
2. We use books and other materials that I can understand.				
3. The things we use in class help me to learn.				
4. My teacher teaches me things that I use at home and when I play.				
5. My teacher makes good plans for us.				
6. I can understand what my teacher writes and says.				
7. My teacher tells me why we do things.				
8. My teacher asks and answers questions in class.				
9. My teacher helps me if I don't understand what I'm supposed to do.				

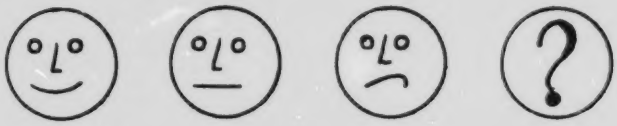
10. My teacher is always ready for our class.



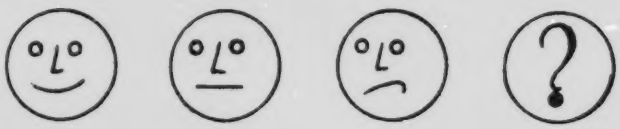
11. My teacher uses ideas of my classmates and me.



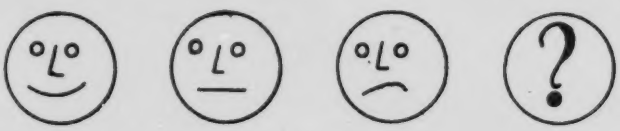
12. My teacher asks questions that let me say a lot about what I know.



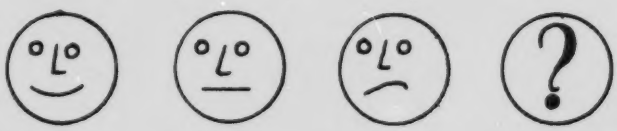
13. My teacher lets me do things in this class.



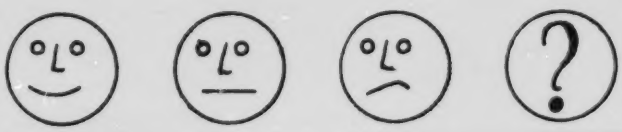
14. My teacher gives me a chance to work alone, to work with a few of my classmates, and to work in a large group.



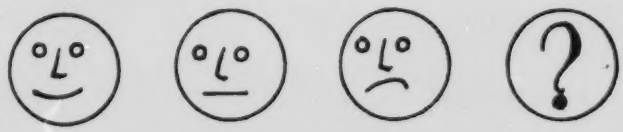
15. My teacher gives me different ways to learn.



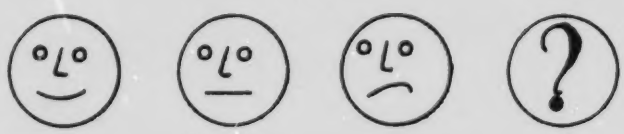
16. My teacher gives me materials and work that help me learn.



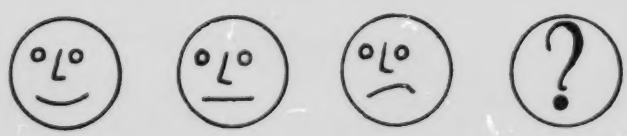
17. My teacher asks me questions that make me think.



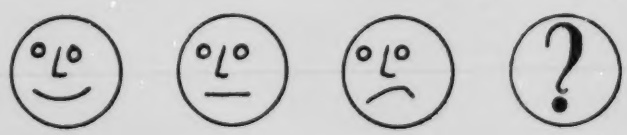
18. My teacher is able to get me interested in learning.



19. My teacher makes me want to finish my work.



20. My teacher tells me how well I am doing.



21. My teacher knows a lot about what we study.

22. The things I study in this class are new to me.

23. My teacher tells me why the work we do is important.

24. My teacher makes my classroom comfortable for me.

25. My teacher has rules for sharpening pencils, going to the toilet, and other things like that.

26. The materials I need to use are always ready for me and I have enough time to do my work.

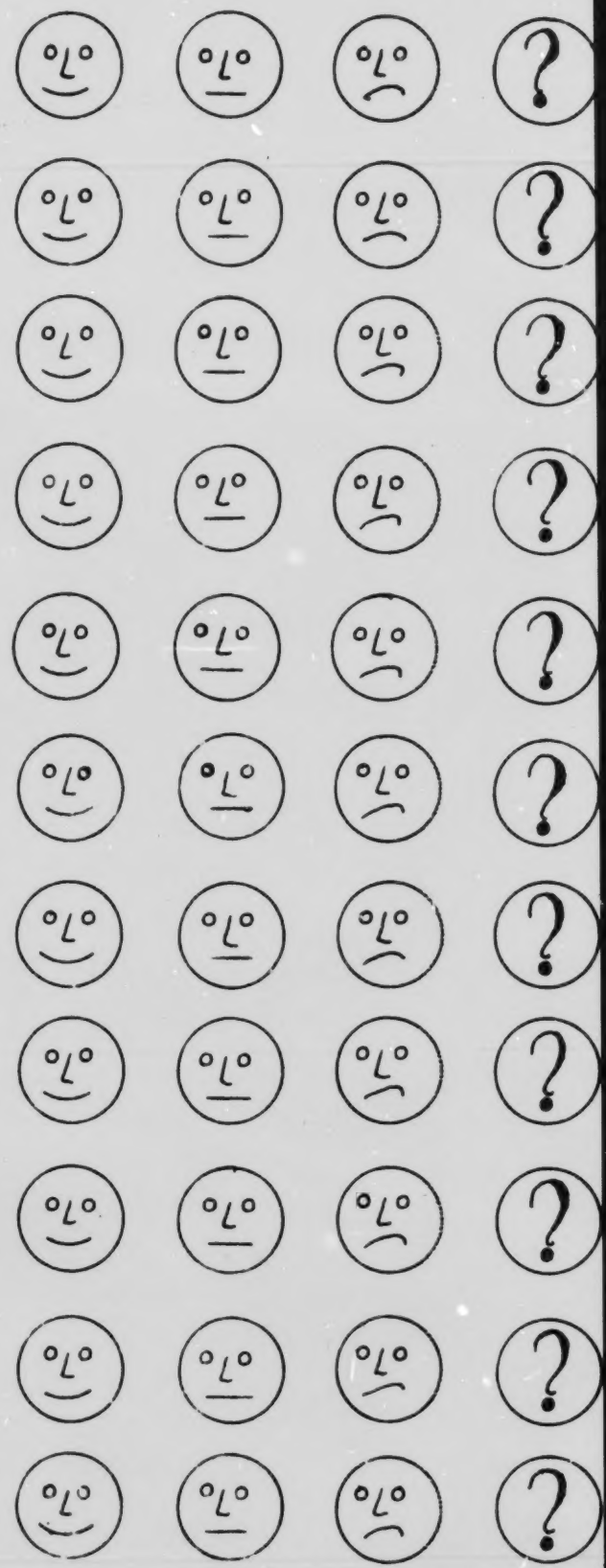
27. My teacher makes my classroom neat and safe.

28. My teacher talks with us about things in the newspapers and on TV.

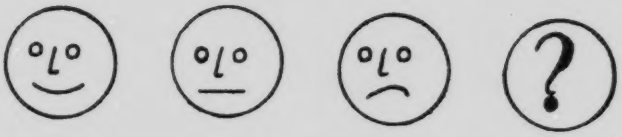
29. My teacher helps me and my classmates do special projects like posters or experiments.

30. My teacher is calm even when things go wrong.

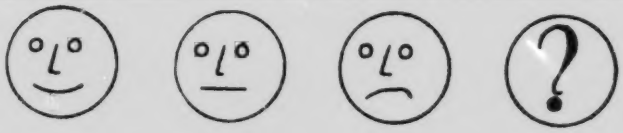
31. My teacher is enthusiastic.



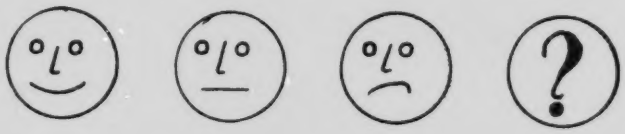
32. My teacher likes to work with me and my classmates.



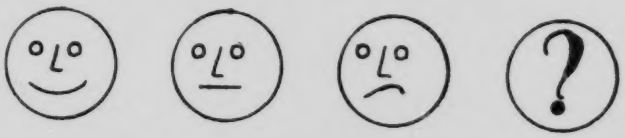
33. My teacher lets us know if we are behaving right or wrong.



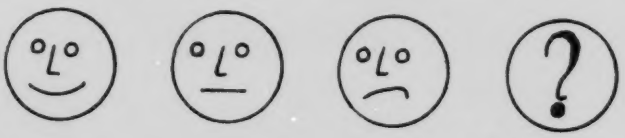
34. My teacher is friendly.



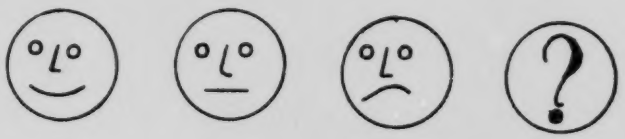
35. My teacher makes me feel better when I am sad or have problems.



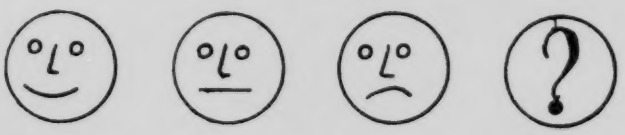
36. My teacher gives me a chance to do well.



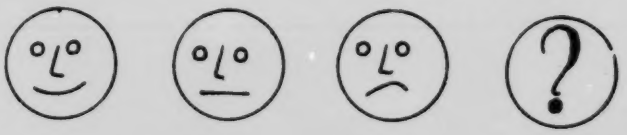
37. My teacher understands me and my classmates.



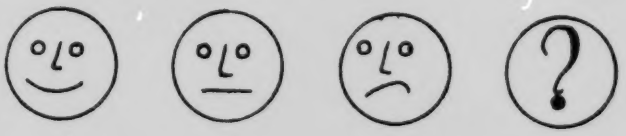
38. My teacher helps me and my classmates learn to work and play together.



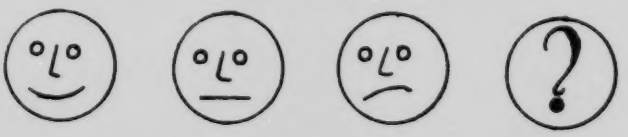
39. My teacher is good at helping the class behave.



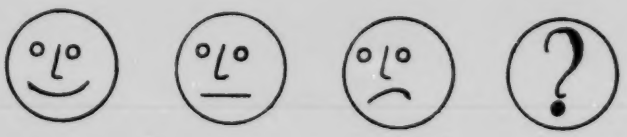
40. I know the rules for behavior in my class.



41. My teacher treats me and my classmates fairly.



42. My classmates and I know what punishment to expect if we break rules.



STUDENT PERCEPTIONS (Co-Adult)

School _____

DATE _____

TEACHER _____

Check the answer that best describes your classroom.

		Often	Sometimes	Never	Don't Know
1.	My teacher uses things like filmstrips, records, and overhead transparencies in class.	____	____	____	____
2.	My teacher uses books and assignments that I can understand.	____	____	____	____
3.	The materials we use in class help me learn.	____	____	____	____
4.	We learn things in this class that are useful to me.	____	____	____	____
5.	My teacher is well organized.	____	____	____	____
6.	I can understand what my teacher writes and says.	____	____	____	____
7.	My teacher explains why we do activities.	____	____	____	____
8.	My teacher both asks and answers questions in class.	____	____	____	____
9.	My teacher will explain things again if students don't understand.	____	____	____	____
10.	My teacher is prepared for class.	____	____	____	____
11.	My teacher uses ideas from students.	____	____	____	____

		Often	Sometimes	Never	Don't Know
12.	When students respond in this class they are encouraged to clarify or elaborate on what they say.	____	____	____	____
13.	Students have a chance to participate in this class.	____	____	____	____
14.	Large group, small group, and individual work is done in this class.	____	____	____	____
15.	A variety of kinds of teaching methods such as discussions, lecture, and problem solving are used in this class.	____	____	____	____
16.	The teaching methods used in this class help students learn.	____	____	____	____
17.	Questions are used in this class that require students to remember and also that require them to think.	____	____	____	____
18.	My teacher is able to get students interested in learning.	____	____	____	____
19.	Students in this class want to stay with their work until it is finished.	____	____	____	____
20.	My teacher lets students know how well they are doing.	____	____	____	____
21.	My teacher understands what we are studying.	____	____	____	____
22.	The things we study in this class are up to date.	____	____	____	____
23.	Students are told how the topics we are studying are important.	____	____	____	____
24.	The temperature and light in this room are adjusted to help us work effectively.	____	____	____	____

		Often	Sometimes	Never	Don't Know
25.	We have a procedure to follow in this class for events like pencil sharpening, leaving the room, and taking roll.	____	____	____	____
26.	This classroom is run efficiently. Time is well planned and the materials we need are available when we need them.	____	____	____	____
27.	This classroom is pleasant, safe, and orderly.	____	____	____	____
28.	My teacher uses unexpected events or the news of the day in our class.	____	____	____	____
29.	Students in this class are encouraged to do special projects.	____	____	____	____
30.	My teacher is calm when things don't go as expected.	____	____	____	____
31.	My teacher is enthusiastic.	____	____	____	____
32.	My teacher shows interest in students and in what we are studying.	____	____	____	____
33.	Students in this class know if they are acting right or wrong.	____	____	____	____
34.	My teacher is friendly.	____	____	____	____
35.	My teacher understands the feelings of students.	____	____	____	____
36.	Students have a chance to be successful in this class.	____	____	____	____
37.	My teacher is patient and understanding with students.	____	____	____	____
38.	My teacher talks with students in a way that helps everyone get along.	____	____	____	____

	Often	Sometimes	Never	Don't Know
39. My teacher uses procedures that are effective in maintaining classroom behavior.	____	____	____	____
40. The rules for behavior in this class are made clear to students.	____	____	____	____
41. My teacher is fair to students in handling behavior problems.	____	____	____	____
42. My teacher follows the school rules in handling behavior problems.	____	____	____	____

Compiling Data

The purpose of this section of the manual is to describe how the information acquired during an assessment is processed and reported. Different procedures will be described that are used under different circumstances.

Information Needed

An assessment is complete when the following pieces of information are available. The item noted by an asterisk(*) will usually not be collected in the assessment of student teachers.

Instrument	# of copies	Data Sources
Teaching Plans and Materials	3	Data collector, administrator, department head or lead teacher
Classroom Procedures	3	(Same as above)
Interpersonal Skills	3	(Same as above)
Professional Standards*	2-4	1-2 colleagues, 1-2 administrators
Student Perceptions*	20-30	Learners from a class taught by the teacher

Summarizing the Data

The scores from the various instruments can be transcribed directly to the boxes on the sheets that follow these instructions. The instrument from which the data come is given in abbreviated form for each item (TPM, CP, IS, PS, SP). An entry like "CP, 14" refers to the 14th item on the Classroom Procedures instrument. Student Perception scores are obtained by averaging responses from all learners that complete the instruments. For example, a score of 3.1 on the "SP, 13" item may have been obtained by averaging scores from 20 learners.

The mean score for each competency is obtained by adding all the entries for that competency statement and dividing by the total number of entries. Any items left blank are not considered data entries and do not contribute to the mean scores. Mean scores are written in the appropriate boxes on the data sheets and on the Summary Sheet of Teaching Competence. All scores on the Summary Sheet are connected with a line to show the competency profile.

Computer Data Processing

If a computer data processing procedure is being used, all of the activities described in the previous section on "Summarizing the Data" are carried out by a computer. In this event your job is to compile data sheets from all data sources that can be optically scanned. This will include one data sheet each from yourself, an administrator, and a department head. An additional sheet will include scores from all persons that complete the Professional Standards instrument. Finally, sheets that show responses from learners are included.

Planning Instruction

Plans instructions to achieve selected objectives

TPM, 1 Specifies or selects learning objectives ☐ ☐ ☐

TPM, 2 Specifies or selects teaching procedures ☐ ☐ ☐

TPM, 3 Specifies or selects content, materials, and media ☐ ☐ ☐

TPM, 4 Specifies or selects materials and plans for assessment ☐ ☐ ☐

MEAN ☐

Organizes instruction to take into account individual differences among learners

TPM, 5 Accounts for differences in capabilities ☐ ☐ ☐

TPM, 6 Accounts for differences in learning styles ☐ ☐ ☐

TPM, 7 Accounts for differences in rates of learning ☐ ☐ ☐

MEAN ☐

Instructing

Uses instructional techniques, methods, and media related to the objectives

CP, 1 SP, 1 Operates AV & other equipment ☐ ☐ ☐ ☐

CP, 2 SP, 2 Materials compatible with abilities ☐ ☐ ☐ ☐

CP, 3 SP, 3 Materials appropriate for objectives ☐ ☐ ☐ ☐

CP, 4 SP, 4 Learners apply what they learn ☐ ☐ ☐ ☐

CP, 5 SP, 5 Sequential and logical organization ☐ ☐ ☐ ☐

MEAN ☐

Instructing (contd.)

Communicates with learners both orally and in writing

CP, 6 SP, 6	Gives clear directions and explanations	☐	☐	☐	☐	
CP, 7 SP, 7	Communicates the purpose of activities	☐	☐	☐	☐	MEAN
CP, 8 SP, 8	Seeks and responds to questions	☐	☐	☐	☐	☐
CP, 9 SP, 9	Uses different words and ideas	☐	☐	☐	☐	
CP, 10 SP, 10	Knows what is to be done	☐	☐	☐	☐	

Reinforces and encourages the efforts of learners

CP, 11 SP, 11	Uses ideas from learners	☐	☐	☐	☐	MEAN
CP, 12 SP, 12	Encourages learners to elaborate	☐	☐	☐	☐	☐
CP, 13 SP, 13	Provides opportunities for participating	☐	☐	☐	☐	

Demonstrates a repertoire of teaching methods and techniques

CP, 14 SP, 14	Works with individuals and groups	☐	☐	☐	☐	
CP, 15 SP, 15	Uses a variety of instructional methods	☐	☐	☐	☐	MEAN
CP, 16 SP, 16	Uses procedures appropriate for lessons	☐	☐	☐	☐	☐
CP, 17 SP, 17	Uses a variety of questions	☐	☐	☐	☐	

Instructing (contd.)

Uses procedures which involve the student in the learning task

CP, 18 Gets learners involved in lessons ☐ ☐ ☐ ☐
SP, 18

CP, 19 Maintains learner involvement ☐ ☐ ☐ ☐
SP, 19

CP, 20 Provides feedback on progress ☐ ☐ ☐ ☐
SP, 20

MEAN ☐

Demonstrates skill with and understanding of the subject being taught

CP, 21 Demonstrates skills and thought ☐ ☐ ☐ ☐
SP, 21 processes

CP, 22 Presents up-to-date information ☐ ☐ ☐ ☐
SP, 22

CP, 23 Gives the importance of topics ☐ ☐ ☐ ☐
SP, 23

MEAN ☐

Managing Instruction

Organizes time, space, materials, and equipment for instruction

CP, 24 Adjusts environment for comfort ☐ ☐ ☐ ☐
SP, 24

CP, 25 Plans for routine tasks ☐ ☐ ☐ ☐
SP, 25

CP, 26 Organizes materials and time ☐ ☐ ☐ ☐
SP, 26

CP, 27 Provides a safe and orderly ☐ ☐ ☐ ☐
SP, 27 environment

MEAN ☐

Adjusts instruction to individual learners and to changes in conditions as they arise

CP, 28 Uses unplanned events ☐ ☐ ☐ ☐
SP, 28

CP, 29 Encourages special projects ☐ ☐ ☐ ☐
SP, 29

CP, 30 Makes adjustments as needed ☐ ☐ ☐ ☐
SP, 30

MEAN ☐

Providing the Learning Environment

Demonstrates enthusiasm for teaching and learning and for the subject being taught

IS, 1 SP, 31 Communicates personal enthusiasm ☐ ☐ ☐ ☐

IS, 2 SP, 32 Shows interest in learners and the subject ☐ ☐ ☐ ☐

MEAN ☐

Helps learners develop positive concepts of themselves

IS, 3 SP, 33 Provides feedback about behavior ☐ ☐ ☐ ☐

IS, 4 SP, 34 Demonstrates warmth and friendliness ☐ ☐ ☐ ☐

IS, 5 SP, 35 Sensitive to needs and feelings ☐ ☐ ☐ ☐

IS, 6 SP, 36 Provides opportunity for success ☐ ☐ ☐ ☐

IS, 7 SP, 37 Shows patience and understanding ☐ ☐ ☐ ☐

MEAN ☐

Guides interaction in the classroom so as to discourage the occurrence of disruptive behavior

IS, 8 SP, 38 Fosters comfortable relationships ☐ ☐ ☐ ☐

IS, 9 SP, 39 Uses techniques to maintain behavior ☐ ☐ ☐ ☐

IS, 10 SP, 40 Establishes rules for class ☐ ☐ ☐ ☐

MEAN ☐

Manages disruptive behavior among learners

IS, 11 SP, 41 Manages disruptions objectively ☐ ☐ ☐ ☐

IS, 12 SP, 42 Manages behavior according to policy ☐ ☐ ☐ ☐

MEAN ☐

Evaluating

Obtains information about the needs and progress of individual learners

TPM, 8 Obtains information from tests and records ☐ ☐ ☐

TPM, 9 Uses tests to obtain information ☐ ☐ ☐ MEAN

TPM, 10 Communicates about needs and progress ☐ ☐ ☐ ☐

Refers learners with special problems to specialists

TPM, 11 Identifies learners that need assistance ☐ ☐ ☐ MEAN

TPM, 12 Obtains assistance from co-workers ☐ ☐ ☐ ☐

Uses information about the effectiveness of instruction to revise it when necessary

TPM, 13 Obtains information on effectiveness ☐ ☐ ☐

TPM, 14 Revises instruction as needed ☐ ☐ ☐ MEAN ☐

Being a Professional

Exhibits professional traits of character

PS, 1 Works cooperatively ☐ ☐ ☐ ☐

PS, 2 Shares materials and ideas ☐ ☐ ☐ ☐ MEAN

PS, 3 Practices ethical behavior ☐ ☐ ☐ ☐ ☐

PS, 4 Demonstrates a positive attitude ☐ ☐ ☐ ☐

Determines professional needs through self-evaluation and engages in a professional self-improvement program

PS, 5 Participates in in-service ☐ ☐ ☐ ☐

PS, 6 Evaluates professional skills ☐ ☐ ☐ ☐ MEAN

PS, 7 Learns about teaching ideas ☐ ☐ ☐ ☐ ☐

PS, 8 Participates in organizations ☐ ☐ ☐ ☐

PS, 9 Participates in activities ☐ ☐ ☐ ☐

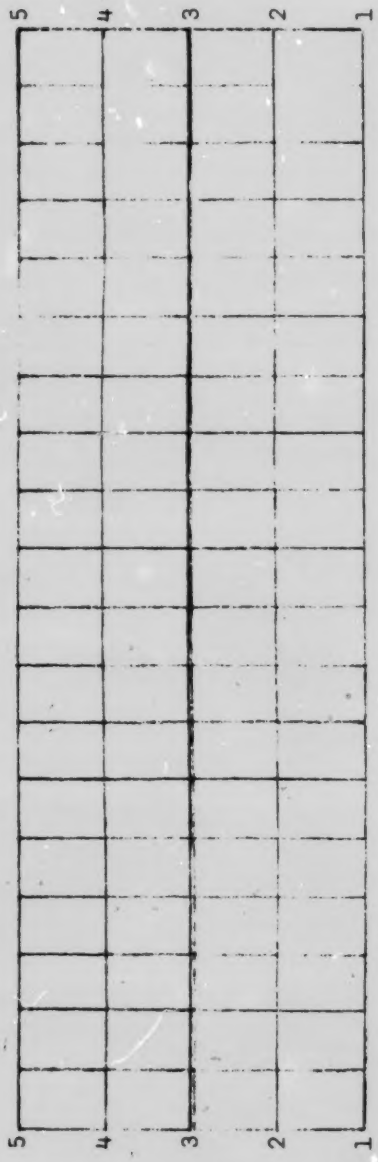
Being a Professional (contd.)

Meets professional responsibilities

PS, 10	Carries out policies and procedures	☐	☐	☐	☐	MEAN
PS, 11	Uses appropriate methods to change	☐	☐	☐	☐	☐
PS, 12	Completes records and reports	☐	☐	☐	☐	
PS, 13	Carries out duties	☐	☐	☐	☐	

SUMMARY SHEET OF
TEACHING COMPETENCE

TEACHER_____
DATE_____



Completes obligations	BEING A PROFESSIONAL
Evaluates and improves	
Works with colleagues	
Revises instruction	EVALUATING
Refers learners to specialists	
Obtains information	
Manages disruptions	PROVIDING THE LEARNING ENVIRONMENT
Discourages disruptions	
Develops self concepts	
Demonstrates enthusiasm	
Adjusts for individuals	MANAGING INSTRUCTION
Organizes for instruction	
Understands subject matter	INSTRUCTING
Involves learners	
Uses a variety of methods	
Reinforces learners	
Communicates with learners	
Uses methods related to objectives	
Organizes for individuals	PLANNING INSTRUCTION
Plans instruction	

APPENDIX B

CLASSROOM OBSERVATION SCALE
INSTRUMENT MANUAL
(COBS)

PROJECT S.E.C.T.
(Special Education Competencies for Teachers)

Rick Kopp, Project Director
Cindy Watlington, Project Coordinator and Special Education Consultant
Suzanne Gerson, Word Processing
Mary Haygood & Bob Hearn, Publications

Project SECT is a Special Developmental Project
of the
Metropolitan Cooperative Educational Service Agency
2268 Adams Drive, N.W.
Atlanta, Georgia 30318

Funded under Title IV Grant No. 856-2-76-222-77-C06

September, 1977

ORGANIZATION AND OVERVIEW OF THE COS

The COS provides the observer with a structure which focuses observation on variables comprised of teacher behaviors which have been shown to be positively related to positive pupil outcome.

For each of the DIMENSIONS in the COS, the observer is provided with a brief statement of orientation to the DIMENSION in general and examples of teacher behavior at each end of the continuum. For each of the five scale points, there is an accompanying descriptor. The observer is to identify the descriptor most nearly reflecting that situation which is observed in the observation session.

Each scale has a set of five descriptors. The descriptors represent a complex of behaviors and processes rather than a single dimension. The observer chooses the descriptor which most nearly reflects the teaching situation he observes at that particular time. However, because many factors influence the teaching processes observed (for example, the purpose of the lesson, the subject matter being taught, etc.), a number of observations might better reflect the teachers usual mode of teaching and the processes in action in that classroom.

Appropriate training of observers is a key to the adequate utilization of the scales. This training should include master video tapes to provide uniform stimuli (teaching sessions) against which the adequacy of observer ratings can be weighed.

The following presents a brief organizational view of the COS and is followed by a more detailed overview. The next section contains the actual DIMENSION sheets which accompany COS elements discussed in the present chapter.

ORGANIZATION OF THE COS

I. ATMOSPHERE OF THE CLASS

A. Teacher Characteristics

* 1. Warmth
* 2. Enthusiasm
* 3. Openness
* 4. Acceptance

B. Classroom Interaction

* 1. Classroom Conviviality
* 2. Equity
* 3. Student Involvement
* 4. Student Cooperation

II. INSTRUCTIONAL IMPLEMENTATION

A. Classroom Organization and Operation

1. Physical Flexibility

* a. Teacher Mobility
* b. Student Mobility
* c. Classroom Arrangement

2. Behavior Management

* a. Positive Reinforcement
* b. Immediacy of Reinforcement
* c. Responding to Inappropriate Student Behavior
* d. Use of Punishment

B. Instructional Techniques

1. Conducting the Lesson

* a. Introducing the Lesson
* b. Individualizing Instruction
* c. Pacing Learning Tasks
* d. Guiding the Work Session
* e. Monitoring Learning
* f. Using a Variety of Teaching Resources
* g. Control of Use of Materials
* h. Individualized Evaluation
* i. Use of Time
* j. Flexibility/Spontaneity

2. Communication Style

* a. Pacing Communication
* b. Clarity
* c. Feedback
* d. Questioning Techniques
* e. Consistency of Message
* f. Use of Student Ideas

(* an individual scaled DIMENSION)

The Classroom Observation Scales (COS) developed by Project S.E.C.T. are designed to organize observation of the classroom into two major areas of consideration:

- o Atmosphere of the Class
- o Instructional Implementation

Each of these major areas is divided further until the final stage of subdivision, the individual DIMENSION scale. The major organizers are outlined below.

I. ATMOSPHERE OF THE CLASS

DIMENSIONS included in the assessment of classroom atmosphere are designed to add objectivity to the determination of how a classroom "feels" to the observer. There are two aspects of classroom atmosphere treated:

- o Teacher Characteristics
- o Classroom Interaction

A. Teacher Characteristics

The following four scales are included in this subsection of the COS:

1. Warmth: This DIMENSION refers to the amount of student-teacher contact in language and body language.

2. Enthusiasm: This DIMENSION refers to the enthusiasm or interest level expressed by the teacher during class activities. It includes involvement with students and interest in their participation and performance.

3. Openness: This DIMENSION refers to the teacher's ability to be honest, openly accept criticism, or admit mistakes with a positive attitude.

4. Acceptance: This DIMENSION refers to the amount of acceptance or approval the teacher expresses for individuals as well as groups. It includes the degree to which the teacher can communicate her feelings of empathy and understanding to the students.

B. Classroom Interaction

Whereas Section A above dealt with overall attitudes the teacher exhibits toward teaching, the classroom, and the students, this section addresses qualities of the interaction observed to take place in the class. The four scales below are included in this subsection of the COS:

1. Classroom Conviviality: This DIMENSION refers to the ability of the teacher to establish a positive, relaxed, and stimulating environment conducive to learning and personal well-being.

2. Equity: This DIMENSION refers to a teacher's ability to devote time and attention among students equally.

3. Student Involvement: This DIMENSION refers to the degree of participation and interest shown by students in individual or group activities.

4. Student Cooperation: This DIMENSION refers to the level of cooperation observed among class members during activities. This includes the amount of encouragement given by the teacher.

II. INSTRUCTIONAL IMPLEMENTATION

The second major focus of the COS is the assessment of instructional implementation and focuses on two facets of classroom activity:

- o Classroom Organization and Operation
- o Instructional Techniques

Each of these facets of instructional implementation is further subdivided as shown below.

A. Classroom Organization and Operation

The scales in this subsection of the COS are further subdivided into the following two groupings:

- o Physical Flexibility
- o Behavior Management

1. Physical Flexibility

Physical flexibility refers to the degree to which positions and movement in the classroom free to change. The DIMENSIONS comprising this section are as follows:

a. Teacher Mobility: This DIMENSION refers to the degree to which the teacher moves about the class.

b. Student Mobility: This DIMENSION refers to the teacher's ability to organize and supervise student movement within the classroom. It includes the teacher's ability to stimulate students to be involved in purposeful learning activities.

c. Classroom Arrangement: This DIMENSION refers to the type or varieties of seating arrangements the teacher has in her classroom.

2. Behavior Management

This set of scales is designed to facilitate and systemmatize the observation of the teacher's methods of controlling the actions of the students. The following DIMENSIONS are included in this subsection of the COS.

a. Positive Reinforcement: This DIMENSION refers to the use of positive reinforcement to modify student behavior.

b. Immediacy of Reinforcement: The DIMENSION refers to how quickly responses are reinforced in the classroom.

c. Responding to Inappropriate Student Behavior: This DIMENSION deals with the teacher's reaction to undesirable behavior of the student such as not following class rules, remaining off task, etc.

d. Use of Punishment: This DIMENSION refers to the use of consequences for certain classroom behaviors.

B. Instructional Techniques

Whereas the scales in Section IIA of the COS dealt with the operational and organizational concerns of instructional implementation, this subsection deals directly with key elements of the teacher's instructional techniques. Two further subdivisions of this section are made:

- o Conducting the Lesson
- o Communication Style

1. Conducting the Lesson

This set of scales addresses the question of how the teacher approaches the task of conducting a lesson. The

DIMENSIONS which treat this task are as follows:

a. Introducing the Lesson: This DIMENSION refers to the teacher's ability to gain the attention and interest of all students and clearly introduce a new topic or return to a previously discussed topic.

b. Individualizing Instruction: This DIMENSION refers to the teacher's ability to meet each student's needs on an individual basis.

c. Pacing Learning Tasks: This DIMENSION refers to a teacher's ability to regulate the rate of presentation so that it coincides with the student's ability to participate effectively in the activity.

d. Guiding the Work Session: This DIMENSION refers to the teachers ability to guide the work session in a meaningful and purposeful manner.

e. Monitoring Learning: This DIMENSION refers to the methods and/or techniques by which a teacher checks the progress of students in a learning setting. It includes interaction between the teacher and student during this time period.

f. Using a Variety of Teaching Resources: This DIMENSION refers to the degree to which the teacher's curriculum encompasses student needs and abilities through a variety of resources involving multiple modalities.

g. Control of Use of Materials: This DIMENSION refers to the accessibility of materials and equipment and allows for development of responsibility for their use.

h. Individualized Evaluation: This DIMENSION refers to the teacher's evaluation of the individual's contribution or response.

i. Use of Time: This DIMENSION refers to the use of extra time available after scheduled tasks have been completed.

j. Flexibility/Spontaneity: This DIMENSION refers to the degree and amount that a teacher will change and reorganize lessons, activities, classroom structure, and classroom schedule. It also refers to the ability of a teacher to use spontaneous occurrences in the classroom to motivate learning and stimulate student interest.

2. Communication Style

Aside from the Section IIB1 elements which comprise the task of conducting the lesson, instructional techniques also encompass a number of variables relating to the teacher's style of communication. The DIMENSIONS which speak to this set of instructional techniques are as follows:

a. Pacing Communication: This DIMENSION refers to the amount of time allowed for a child to complete a response or assignment. It also refers to timing and pacing of directions or statements by the teacher in accordance with the needs of a group or individual.

b. Clarity: This DIMENSION refers to the clarity of instructions and expectations conveyed to the students.

c. Feedback: This DIMENSION refers to the extent of communication to the student of information about the adequacy, acceptability, completeness, or correctness of student response and directions to assist the learner toward improved performance.

d. Questioning Techniques: This DIMENSION refers to the levels of understanding explored by a teacher using questions ranging from one word responses to those requiring reasoning and/or exploration.

e. Consistency of Message: This DIMENSION refers to the follow-through of the teacher concerning specific verbal directions or consequences expressed by her during class activities.

f. Use of Student Ideas: This refers to the acceptance or utilization of student ideas.

INSTRUCTIONS TO THE OBSERVER
CONCERNING THE OBSERVATION-INTERVIEW SESSION

These are general instructions provided to give observers an overview of the procedures prior to and during the visitation session. These areas were discussed more thoroughly during specific training in this area.

I. THREE WEEKS PRIOR TO VISIT:

Assignment to School. You will be assigned to a particular school and special education class.

II. TWO WEEKS PRIOR TO VISIT:

A. Letter Contact. A letter will be sent to the principal of the school and to the teacher to be observed in advance of your visit. They will receive the announcement about two weeks before your visit. You will receive a copy of the letters.

B. Orientation Information. Accompanying the letter will be an orientation to the visitation and a request for information from the teacher. Items of information requested are these:

- a profile of each child
- a seating chart
- a description of the nature of the class
- an instructional schedule
- lesson plans and an elaboration of these plans

This information is to be returned at least ten (10) days prior to the visitation.

III. ONE WEEK PRIOR TO VISIT:

A. Teacher Telephone Contact. Contact your assigned teacher one week prior to the day you will observe. She/he will be expecting your call. The telephone number of the school appears on your assignment sheet.

The purpose of your telephone contact is to:

- o introduce yourself
- o announce your arrival
- o arrange a time for the observation session to begin and schedule this with the teacher
- o ask for directions to the school
- o ask for the school's check-in procedures for visitors
- o ask about you and your assigned teacher meeting with the principal upon your arrival

Try to establish over the telephone a sense of cooperation, sincerity, and sensitivity to the teacher's problems in having an observer in the classroom.

B. Principal Telephone Contact. Contact the principal to arrange a release period of one hour so that you may meet with the teacher for the interview session.

C. Returned Teacher Information. By this time the information requested from the teacher should have been received by you and you should, before the first observation session, familiarize yourself with all the material.

IV. THE VISITATION DAY:

A. Invisibility of Observers. As closely as possible, you should adhere to the "invisible observer" rule. An unobtrusive observer will gather more data much more accurately. Remember to seek a place where you can watch, but where you will be out of the way. Be constantly aware that you might be intruding on a teacher's personal space, and take precautions to avoid this.

REMEMBER: you are a non-participant observer. DON'T intrude on the life of the classroom you will be visiting.

B. Notion of Reciprocity. To create an atmosphere of cooperation in the observation session, consider these ideas:

- o "Thank you's" and "Goodbye's" are greatly appreciated.
- o Be sensitive to most teacher's concern that "researchers don't stay all day so they miss some things."
- o Be friendly without being obtrusive.
- o Generally, if it is questioned, try to impress upon everyone that you are there to observe, not to teach or "help."
- o Be a good listener and be supportive of what you are told. You will gather much information in this way.

C. Data Collection (Observing and Recording). For purposes of our study, data collection will be composed of both formal observations and informal observations.

1. Formal Observation. These are observations in the classroom when you will be taking notes and recording information on the instruments. Keep the following in mind:

- o Duration. The length of the observation will be approximately two to three hours.

- o Collect essential additional information. Record also that information about the classroom discussed in training.

  - date of observation
  - teacher and school name
  - type of class and grade level
  - lessons observed
  - age of students
  - number of students (number of boys,girls)
  - time begun and ended

2. Informal Observations. These will include information about the following:

   - o Interview with the teacher. Discuss aspects of her presentation, her philosophy of teaching in the special education class, and other areas outlined in the interview schedule.

   - o The classroom. What is the physical environment like? How does it feel? What is displayed on the bulletin boards? Are there learning centers? Are there areas where student work is displayed?

   - o The school environment. Describe the school and surrounding community. Communicate some general observations about the school atmosphere.

V. AFTER THE VISITATION

A. At the School. Before leaving express appreciation to teacher and principal for the opportunity to observe. Create an environment for observation in which the next observer will be welcome.

B. Your Records. Return all instrument answer sheets, basic school data, PVII and POI to the Project S.E.C.T. office within one week of visitation.

POST-OBSERVATION INTERVIEW (POI) SCHEDULE FOR OBSERVERS

Discuss with your assigned teacher the following items. Create an atmosphere of openness and cooperation by letting her(him) know that you are interested in obtaining her/his ideas with opinions. Remember, this is the teacher's opportunity to express information about contextual variables, feelings about the observation, etc. Be receptive. Your attitude and manner will create a lasting image in the mind of the teacher concerning observers in the school. Please make it a positive image.

It is your responsibility also to study the information inventory material received and the self-evaluation for the purpose of questioning further in the interview session those areas that seem vague. In addition, there may be aspects of the observation session that need to be more fully explored. Make note of these areas in the appropriate "comments" section below and question wherever information in needed.

PROCEDURE	COMMENTS
I. <u>Beginning the Interview</u> Establish a relaxed atmosphere of congeniality and cooperation. Talk with the teacher in an open, informal way. A. Teacher and interviewer move to a quiet, private location. B. Collect and bring along any written information that has been completed by the teacher.	

PROCEDURE	COMMENTS
C. Begin with an informal chat -- let the teacher know: o how much you appreciate her/his time and help o that at any time ask any questions o you want honest reactions and thoughts to what you're asking her/him	
D. In order that the teacher will not have to wait an hour to relate something about what happened in class, begin by asking her/him about the observation session. Ask the teacher: o Is there anything you would like to relate about how things went today in class? o Was this a typical day? o What happened differently today in the schedule? with the pupils? o How did you feel about the observation session? o Are there things we could do differently to make the observation session better for you and the class?	

PROCEDURE	COMMENTS
II. Classroom Organization and Management Talk with the teacher about the thoughts that underlie organization and management of the classroom. Ask the teacher: A. How do you determine instructional groupings in your classroom? B. In what manner do you provide for individualization of instruction in the classroom? C. How are seating arrangements decided? D. What are your feelings about movement in the classroom? E. How is it communicated to students which behaviors are appropriate and which are inappropriate? F. In what ways are children reinforced positively in the classroom? G. What specific behavior management techniques do you use to deal with inappropriate behavior? H. What things do you do to help students learn to govern their own behavior?	

PROCEDURE	COMMENTS
II. Diagnosis and Assessment Discuss with the teacher methods used in determining children's needs and progress. A. How are the results of tests administered by the psychologist used in the classroom to determine and prescribe for children's needs? B. What things do you do in the classroom to diagnose a child's needs? C. How do you determine specific tests to use in diagnosing or assessing a child's needs? D. If you ascertain a need which you cannot meet what do you do? E. When do you assess a child's progress? By what means? F. How do you determine whether or not your teaching methods are effective? How often do you assess them? G. How do you decide on the effectiveness of certain materials used and their level of appropriateness?	

PROCEDURE	COMMENTS
V. Planning and Revision Having reviewed the lesson plans and the elaboration of them, ask these additional questions about planning and revision of plans. Ask the teacher: A. How do you obtain and use information about the child's home environment? academic background? B. How do individual handicaps play a part in your planning for a child? C. How often do student ideas contribute to planning? D. What part do observations of the child play in planning? E. How can results of testing help in planning? F. When assessing your teaching, how do you plan for revision of your methods and materials? G. How much "on-the-spot" revision of teaching takes place? Explain. H. How do you go about planning objectives and achieving those objectives?	

PROCEDURE	COMMENTS
V. Student Growth Explore with the teacher ways of facilitating student growth and development. A. How is the student allowed to develop independence and leadership in the classroom? B. What are some ways you help the child develop social and communication skills? C. How do you help children learn to deal with their handicaps and have an appreciation for the problems of others? D. What methods do you use for fostering cooperation and helpfulness among students in the classroom? E. How do you create an atmosphere of warmth and acceptance in the classroom?	

PROCEDURE	COMMENTS
VI. Cooperation with Parents and Professionals Discuss with the teacher relationships with parents and other professionals. A. What is the nature of your parent conferences or home visitations? How often do these occur? B. Do you consult with other teachers, social workers, M.D.'s, etc. about either the academic needs and progress or home environment or health needs of the student? Explain.	

DIMENSIONS OF THE COS

RECORD OF CLASSROOM OBSERVATION

Teacher Observed: _____ ID # _____

School: _____

Experience Level (check one)

- ☐ Student Teacher
- ☐ Beginning Teacher
- ☐ Experienced Teacher

Specialty (check one)

- ☐ EMR
- ☐ LD
- ☐ BD
- ☐ Other _____ (specify)

Setting (check one)

- ☐ Resource Room
- ☐ Self-Contained Class
- ☐ Other _____ (specify)

Number of pupils present ☐

Grade level(s) ☐

Brief description of lesson(s) taught and activities observed:

NOTES:

Observer: _____ Date: _____

DIMENSION Warmth

Brief Statement of Orientation to the Dimension: This dimension refers to the amount of student-teacher contact in the areas of language, body contact and body language.

Example of Descriptor 1: As Mr. Peterson moves around the room to help students, he remains standing with his arms folded while he talks to the students. When the children approach him or touch him, he draws back and avoids contact with them.

Example of Descriptor 5: Mrs. Alexander is walking to class with a group of girls. She has her arms around two girls and is talking and laughing with the group.

WARMTH

Descriptors:

1. The teacher has an air of coldness. There is a lack of affection or warm feelings. The teacher does not encourage freedom of expression. ("cold")

2. Teacher nods as a communication of approval. (S)he, rarely, if ever, uses physical contact. ("distant")

3. Teacher responds to students when approached by students in a controlled manner. Responds in a physical manner only when students have responded in a way (s)he approves. ("polite")

4. Teacher interacts with pupils in a friendly manner. The teacher responds to student questions with eye contact and smiling. Teacher responds spontaneously in a positive manner. ("friendly")

5. Teacher seeks contact with students, talks informally with them. The teacher may use affectionate words with children and/or touch them. The teacher smiles and has a pleasant look on her face. ("warm"; a "pal")

DIMENSION Enthusiasm

Brief Statement of Orientation to the Dimension: This dimension refers to the enthusiasm or interest level expressed by the teacher during class activities. It includes involvement with students and interest in their participation and performance.

Example of Descriptor 1: Mr. Johnson is lecturing the class in an expressionless way, showing little in the science lesson. At the end of the lecture, he mechanically distributes some "seatwork" to the students and sits at his desk. There is little interaction between teacher and students.

Example of Descriptor 5: The classroom feels "alive". Miss Collins moves about the room smiling and engaging the children in the science experiment. She is clearly excited about the lesson and encourages children to participate with equipment and materials.

ENTHUSIASM

Descriptors:

1. This teacher does not seem to care about what he is teaching. His voice is generally monotonic and he seems to be apathetic or bored. This teacher usually remains stationary in the classroom. He uses few gestures and has little eye contact with the students. ("apathetic")

2. This teacher is dry; he sticks strictly to the facts. His attention is focused principally on the blackboard or the materials rather than on the students. The teacher uses little voice modulation or eye contact. ("boring")

3. This teacher is poised and controlled. He wants his students to learn but his presentation lacks sparkle. ("controlled")

4. This teacher is interesting and confident. He demonstrates an earnest desire for his students to grasp the material. His presentation is attractive. ("interesting")

5. This teacher is dynamic and stimulating. He uses expressiveness and variety in tone of voice and eye contact. He includes facts or ideas which stimulate interest. His teaching behavior captures the attention of and excites the students. ("stimulating")

DIMENSION Openness to Fallibility

Brief Statement of Orientation to the Dimension: This dimension refers to the teacher's ability to be honest, openly accept criticism, or admit mistakes with a positive attitude. The key to this dimension is the degree to which the teacher can accept "ownership" for his/her fallibility.

Example of Descriptor 1: The teacher misspells a word on the blackboard. Jean stands up and tells the teacher about the mistake. The teacher looks at the word and tells Jean "Go to your seat and take your book out."

Example of Descriptor 5: The teacher is reading a ditto sheet to the class. She notices some typing errors of her own. A child says, "Maybe you weren't paying attention to what you were doing." The teacher answers, "I guess I wasn't; I had alot on my mind."

OPENNESS TO FALLIBILITY

Descriptors:

1. The teacher is unwilling to acknowledge his/her own errors and exhibits negative emotion or denial.
2. Teacher begrudgingly admits mistake displacing blame onto equipment, student, etc.
3. Teacher acknowledges mistake but makes no other comments.
4. Teacher graciously accepts acknowledgement of his mistake. (i.e., there is minimal "ownership" of the problem from the teacher)
5. The teacher verbally acknowledges a variety of feelings to the class. If the teacher makes a mistake, she comments about it to the students. She then explains the mistake and looks for the right answer. The teacher openly admits an error or an omission of her assignments and directions and is at ease with the problem.

DIMENSION Reaction to Emotions

Brief Statement of Orientation to the Dimension: This dimension refers to the amount of acceptance teacher expresses for individuals as well as groups. It includes the degree to which a teacher can communicate her feelings of empathy and understanding to the students.

Example of Descriptor 1: Linda punches George, and George starts crying. Mr. Smith looks at him and says, "Boys don't cry."

Example of Descriptor 5: After John destroys classroom property and leaves the room, Mr. Jones addresses the class on other's differences - citing examples of hair color and size. Talks about her concern for others regardless of differences, encouraging the class to accept John and see the problem from his vantage point - that John's upset that his Mom is being operated on.

REACTION TO EMOTIONS

Descriptors:

1. Teacher shows no concern for students' needs or feelings. Criticism to the effect that students "ought to know better." Teacher ignores or refuses to talk about feelings. Teacher pushes students to point that they feel nervous or uncomfortable. (Rejects expression of emotions)

2. Teacher dislikes students showing their emotions, only making allowances for student differences and emotions in emergency situations. She will not discuss personal problems in classrooms. (Supresses expression of emotions)

3. Teacher shows concern for students' emotion and behavior when she wants to change a behavior. There is no student involvement. (Tolerates expression of emotions)

4. Teacher accepts individuality and emotional concerns among students and reacts positively toward their expression. (Accepts expression of emotions)

5. Constructive reactions (overt, verbal, non-verbal) to students' feelings and attitudes. Teacher is aware of students' emotional needs and adjusts his/her behavior to accommodate them. Teacher takes time to discuss or explore students' feelings and provides learning experiences to help children gain and use acceptance. (Encourages expression of emotions)

DIMENSION Classroom Conviviality

Brief Statement of Orientation to the Dimension: This dimension refers to the ability of the teacher to establish a positive, relaxed, and stimulating environment conducive to learning and personal well-being.

Example of Descriptor 1: Teacher cannot seem to get the children to cooperate with her. She often addresses students in a loud and unfriendly tone of voice. There is obvious tension in the classroom.

Example of Descriptor 5: While moving around the classroom assisting children with their work, the teacher chats with some of them about personal interests and ideas. She takes an interest in what the child is saying and encourages him to interact.

CLASSROOM CONVIVIALITY

Descriptors:

1. Rigidity of classroom interaction. Unfriendly atmosphere within classroom. Hostile feelings exist between the teacher and students and between students and students. There is evidence of negativity. (Atmosphere: hostile)

2. The teacher is formal and distant with students. Teacher seems insensitive to student feelings or needs. Some rigidity in the classroom. (Atmosphere: formal and rigid)

3. Teacher seems to care for students even though not always aware of their feelings. (Atmosphere: businesslike)

4. The teacher, though jovial and friendly, interacts mostly with the group, with few specific individual interactions. The teacher is more supportive than critical and generally responds to the students. (Atmosphere: responsive)

5. Good feelings and friendship between teacher and student, students and students. The atmosphere is tension-free. The teacher and students accept and like each other. (Atmosphere: friendly)

DIMENSION Equity

Brief Statement of Orientation to the Dimension: This dimension refers to a teacher's ability to equally divide time and attention among students.

Example of Descriptor 1: The teacher sees Kenny and Rob fighting. He sends Kenny to his desk and then bawls Rob out and sends him to a corner of the classroom.

Example of Descriptor 5: The teacher sees Kenny and Rob fighting. Both boys are told to go to their seats. Later, he is called up separately and asked to tell his version of what transpired.

EQUITY

Descriptors:

1. Teacher exhibits different reactions to different students who exhibit like behavior. Teacher tends to show partiality (both positive and negative.
2. Teacher tends to focus most of her time on children at opposite ends of the behavior scale, those exhibiting either mostly positive or negative behavior. Most average students get little attention.
3. Although the teacher tends to overlook the average student, focusing too much attention on children with negative behavior or on children who excel, occasional attempts are made at redistributing attention.
4. Teacher treats the majority of students equally, occasionally overlooking some.
5. Teacher sincerely tries to treat students equally. Teacher attempts to divide her time and attention fairly among all students. Teacher sees each child as an individual and does not show partiality.

DIMENSION Student Involvement

Brief Statement of Orientation to the Dimension: This dimension refers to the degree of participation and interest shown by students in a given activity. Would include individual or group activities.

Example of Descriptor 1: Students are in reading group. Each student is assigned one page to read orally. Students not actively involved till time for them to read.

Example of Descriptor 5: Story has been broken down into parts for each child. Script consists of entire story for purposes of role playing by each child. All are actively involved in total story presentation.

STUDENT INVOLVEMENT

Descriptors:

1. Teacher is lecturing to students. No student initiated participation.
2. At end of lesson, students are allowed to ask questions or discuss material.
3. Teacher stops periodically for questions and discussion.
4. Teacher gives students opportunity to discuss and ask questions throughout the lesson.
5. Teacher has arranged lesson to involve students actively. Students seem to be self-motivated in their questioning and discussion.

DIMENSION Student Cooperation

Brief Statement of Orientation to the Dimension: This dimension refers to the level of cooperation observed among students during class activities. This includes the amount of encouragement given by the teacher.

Example of Descriptor 1: Students make fun of other students who cannot do the assignment. There is no effort to help them.

Example of Descriptor 5: During a math class Ricky shouts out loud that he needs an eraser. Dino says, "I got one!" Vicky also offered him hers.

STUDENT COOPERATION

Descriptors:

1. Students refuse to help other students or students are not allowed to help each other. Students are encouraged to compete with each other. The teacher has strict rules about no talking or helping.

2. Teacher does not encourage helping or sharing among students and she rarely gives the students an opportunity to work together.

3. Students are allowed to help others but are not actively encouraged to do so.

4. Students are encouraged to help each other with their work. Few are doing so.

5. Students express willingness to help other students. Teacher requests and encourages students to help each other. Student helps others finish a task, lends an object to another, etc. Students who are more proficient tutor less proficient students.

DIMENSION Teacher Mobility

Brief Statement of Orientation to the Dimension: This dimension refers to the degree to which the teacher moves about the class.

Example of Descriptor 1: While children are working at their seats, the teacher says to the class, "All the people who need help with their math worksheets may come to me at my desk."

Example of Descriptor 5: While children are working independently or in groups at different activities, the teacher moves around the room checking progress and giving assistance.

TEACHER MOBILITY

Descriptors:

1. The teacher sits behind her desk or fixes herself to one area of the room during class activities. (a "statue")
2. The teacher seldom moves from a given area of the room and is primarily immobile except when movement is necessary. (a small-path pacer)
3. The teacher moves about the room but does not circulate among the students for instructional help or interaction. (circles room like a buzzard)
4. The teacher moves about the room especially when called on for help or to pass out papers. (enters student area when necessary)
5. The teacher moves about the room freely. The teacher is spontaneous in her movements from area to area when the need arises. She circulates among groups of students and work areas to visit and check the student's progress. (Active, purposive movement)

DIMENSION Student Mobility

Brief Statement of Orientation to the Dimension: This dimension refers to the teacher's ability to organize and supervise student movement within the classroom. It includes the teacher's ability to stimulate students to be involved in purposeful learning activities.

Example of Descriptor 1: Paul moved to work with George. Teacher sees him and tells him "How many times do I have to say that everybody should only work at their seats."

Example of Descriptor 5: During the reading lesson with one group, other students were moved about the room purposefully, going to different learning stations and working diligently.

STUDENT MOBILITY

Descriptors:

1. Students are not allowed to leave their seats. Students cannot choose where in the classroom they can work.

2. Students move about classroom only with permission of teacher.

3. Students move around the room to places other than their assigned seats, but only at specified times during the class period and to specified areas of the room.

4. Students move about the room freely but only at specified times during the class period.

5. Students move freely around the room and are allowed to work at places other than their assigned seats. Students sit on the floor or other non-desk areas.

DIMENSION Classroom Arrangement

Brief Statement of Orientation to the Dimension: This dimension refers to the type or varieties of seating arrangements the teacher has in her classroom.

Example of Descriptor 1: Teacher has a traditional setting which never changes regardless of the subject or the students.

Example of Descriptor 5: When the teacher realized that many students wished to speak out on the discussion topic, she arranged the class into small discussion groups for later reporting.

CLASSROOM ARRANGEMENT

Descriptors:

1. The teacher requires pupils to be seated in mass audience arrangement.
2. Teacher allows small changes in setting with limited group interaction but always under his/her direct supervision.
3. Teacher allows students to change places but does not change the room to adapt to these changes.
4. Teacher allows different arrangements in the classroom and children move to different settings if there is an apparent need to work together.
5. The teacher encourages pupils to work in small functional groups by means of physical arrangements of the room such as tables, rugs, desk groupings, etc. These are different physical groupings obvious in the room.

DIMENSION . Positive Reinforcement

Brief Statement of Orientation to the Dimension: This dimension refers to the use of positive reinforcement to modify student behavior.

Example of Descriptor 1: Teacher says, "John, you don't ever do anything right! Your desk is never neat!"

Example of Descriptor 5: Teacher says, "I really like the way Table Two is working quietly." (Students at Table One are shouting and out of their seats.)

POSITIVE REINFORCEMENT

Descriptors:

1. Teacher controls discipline by admonishing the individual or group creating discipline problems rather than addressing the behavior. Teacher uses criticism and sarcasm, especially statements which imply that the student should have known better and how displeased she is with him/her.

2. Teacher tends to react more negatively than positively in her dealings with pupils. Much attention is given to negative behavior.

3. Teacher usually says or does nothing either positive or negative to the class concerning their behavior. Does not notice the behavior or is not sure what to do about it.

4. Teacher tends to react more positively than negatively in her dealings with pupils. There is much attention to the positive, but the teacher can't quite "let it be" when a negative incident (which could have been just as well ignored) occurs.

5. Teacher expresses verbally her approval of good behavior to a group of students so that others are aware of the correct behavior. Teacher's action reinforces student(s) whose behavior is in the right direction. Teacher attends to good behavior and ignores the bad.

DIMENSION Effectiveness of Reinforcement

Brief Statement of Orientation to the Dimension: This dimension refers to how quickly responses are reinforced in the classroom.

Example of Descriptor 1: Teacher provides no feedback to child until he receives grade at end of quarter.

Example of Descriptor 5: Teacher appropriately and immediately uses primary and secondary reinforcers. When child makes correct response, teacher smiles and says, "That's good".

EFFECTIVENESS OF REINFORCEMENT

Descriptors:

1. Teacher shows little or no evidence of knowing how or when to reinforce.
2. Teacher gives feedback frequently but often it misses its mark.
3. Teacher delivers reinforcement with inconsistent frequency and appropriateness.
4. Teacher delivers appropriate reinforcement but not with sufficient frequency.
5. Teacher provides consistent, appropriate reinforcement.

DIMENSION Responding to Inappropriate Student Behavior

Brief Statement of Orientation to the Dimension: This dimension deals with the teacher's reaction to undesirable behavior of the student, such as not following class rules, remaining off task, etc.

Example of Descriptor 1: Teacher attends to child's lack of "on-task" behavior and says, "You never do your work, but what could I expect from you."

Example of Descriptor 5: Teacher ignores Johnny when he is out of his seat. Teacher rewards with a token and/or verbal praise every instance of "in-seat" behavior.

RESPONDING TO INAPPROPRIATE STUDENT BEHAVIOR

Descriptors:

1. Teacher draws attention to child's inappropriate behavior and does not look for appropriate incompatible behavior.
2. Teacher does not always ignore the undesired behavior and does not help the child find an appropriate incompatible behavior.
3. Teacher inconsistently ignores undesirable behavior and inconsistently substitutes an appropriate, incompatible behavior.
4. Teacher ignores inappropriate behavior, but inconsistently rewards desired, incompatible behaviors.
5. Teacher finds opportunity to reinforce the misbehaving student for desirable behavior incompatible with his previous undesired behavior and ignores the inappropriate behavior.

DIMENSION Use of Punishment

Brief Statement of Orientation to the Dimension: This dimension refers to the use of consequences for certain classroom behaviors.

Example of Descriptor 1: During group discussion, Johnny refuses to raise his hand for answering. Teacher shouts angrily, "Johnny, how many times do I have to tell you to raise your hand!"

Example of Descriptor 5: During group discussion, Johnny refuses to raise his hand before answering. Teacher gives him signal for inappropriate behavior. He continues calling out. Teacher quietly removes him from class for five minutes.

USE OF PUNISHMENT

Descriptors:

1. Teacher reacts in an emotional or irrational manner; uses no warning signal; and administers spur-of-the-moment punishment.
2. Teacher uses no warning signal and administers arbitrary punishment in an irrational manner.
3. Teacher does not consistently use warning signals. Teacher calmly administers arbitrary punishment.
4. Teacher is in control of her emotions; uses a warning signal; and if behavior continues, administers an arbitrary punishment.
5. Teacher is in control of her emotions, uses a warning signal and, if behavior continues, administers a punishment procedure which has been predetermined.

DIMENSION Introducing the Lesson

Brief Statement of Orientation to the Dimension: This dimension refers to the teacher's ability to clearly introduce a new topic or return to a previously discussed topic.

Example of Descriptor 1: Teacher says, "everybody take out science book and turn to page 3." Teacher begins talking.

Example of Descriptor 5: Teacher begins science lesson on animals by reviewing the previous day's lesson and discussing topics covered. She makes sure all students understand before proceeding to new topic. The students are actively engaged in participating in discussion.

INTRODUCING THE LESSON

Descriptors:

1. The lesson is begun without introduction.
2. The lesson is introduced by a muddled, inadequate introduction.
3. The lesson is introduced by a "task-at-hand" introduction which prefaces the lesson but does not link it to past or future work.
4. The lesson is preceded by a brief review of past work, linking the present lesson to previous learning. The present lesson is also introduced.
5. The lesson is introduced, linking the to-be-learned material to past work and also to work to come. The student sees where the lesson fits in the "Big Picture."

DIMENSION Individualizing Instruction

Brief Statement of Orientation to the Dimension: This dimension refers to the teacher's ability to match the difficulty level of work with student's ability level so that it coincides with the student's ability to participate effectively in the activity.

Example of Descriptor 1: "The class will please turn to page 45 and do exercise A."

Example of Descriptor 5: Some children are working at learning centers while others are working independently at desks on a variety of tasks.

INDIVIDUALIZING INSTRUCTION

Descriptors:

1. The entire class is taught the same lesson at the same time. All students are assumed to have the similar abilities, are given the same instructions and judged on a group standard.

2. Students are divided into groups but the range of ability seems too great to meet individual needs. Differences within groups are not attended to.

3. Some recognition of individual needs is present in assigning work or grouping, but is done inconsistently.

4. Students are divided into groups but not to the extent that meeting individual needs is a predominant concern in the classroom.

5. Learning tasks seem designed to match the interest and abilities of individual students. Independent work or individuals working alone or in small groups is predominant within the classroom.

DIMENSION Monitoring Learning

Brief Statement of Orientation to the Dimension: This dimension refers to the methods and/or techniques by which a teacher checks the progress of students in a learning setting while the students are working.

Example of Descriptor 1: Students are working on workbooks at their desks. They call out, "Me, Me" and "Ms. Glover, Ms. Glover." Teacher tells them "This is work time: I want everyone to be quiet."

Example of Descriptor 5: As children are working on math worksheets, the teacher goes from student to student to check on their progress.

MONITORING LEARNING

Descriptors:

1. Because she is otherwise engaged, the teacher ignores students while they are working except to pass out or collect papers.
2. Teacher watches for raised hands and checks progress of student work from her desk. The teacher does not move about the room.
3. Teacher checks progress of students occasionally or when a hand is raised.
4. The teacher contacts students on a regular basis, but she is less systematic than is needed to monitor the students adequately.
5. Teacher contacts students regularly and systematically. Teacher checks in on each pupil's progress periodically and makes an attempt to know where each student is in his work at all times.

DIMENSION Guiding the Work Session

Brief Statement of Orientation to the Dimension: This dimension refers to the degree to which the teacher guides the work session in a meaningful and purposeful manner.

Example of Descriptor 1: Child raises hand for assistance and is told, "Oh, you don't need help: you can do it."

Example of Descriptor 5: During a reading group a teacher recognizes that a child is completing his workbook page incorrectly. She then sits down with him and says, "Johnny, let's do this page together."

GUIDING THE WORK SESSION

Descriptors:

1. Teacher refuses to acknowledge students' individual needs.
2. Teacher acknowledges children's problems but refuses to give assistance.
3. Teacher acknowledges that some students need assistance but gives assistance inconsistently.
4. Teacher offers assistance when needed.
5. Teacher anticipates the difficulty some students will have in keeping up and offers assistance when and if needed.

DIMENSION Pacing Learning Tasks

Brief Statement of Orientation to the Dimension: This dimension refers to a teacher's ability to regulate the rate of presentation so that it coincides with the schedule.

Example of Descriptor 1: Teacher is explaining math problems. John says, "I don't get it;" four other students chime in. Teacher keeps on explaining the math problems.

Example of Descriptor 5: During a science experiment, the teacher presents the material so as to allow time for exchange of questions between each step. He considers students' questions and adjusts his presentation accordingly. He elicits students' opinions as to the results of the experiment. He then allots adequate time for student experiments and individual work.

PACING LEARNING TASKS

Descriptors:

1. Teacher proceeds too fast or too slowly; students show frustration or boredom, respectively. Shows no awareness of the need to adjust her pace.
2. Teacher moves at an inappropriate pace for most students and seldom monitors before proceeding. Students show some frustration.
3. Teacher inconsistently monitors completion of tasks before proceeding.
4. Teacher monitors completion of tasks before proceeding. Teacher is able to perceive student learning rate and usually adjusts teaching pace.
5. Teacher monitors completion of tasks before proceeding. Teacher is able to perceive student learning rate through questioning and observation, and adjusts teaching pace appropriately. Teacher shows good understanding of time needed.

DIMENSION Individualized Evaluation

Brief Statement of Orientation to the Dimension: This dimension refers to the teacher's evaluation of the individual's contribution or response.

Example of Descriptor 1: Teacher says in a totally negative manner, "How can you be so dumb? This is not the answer I wanted!"

Example of Descriptor 5: The teacher viewed the pupil's mistake as a natural consequence of learning and did not laugh or critize, but said: "That's something different." And later, "Do you think you would like to live with that?" When it was clear the pupil thought his bizarre ideas was good, the teacher said, "Maybe you've hit on something. But what happens next?"

INDIVIDUALIZED EVALUATION

Descriptors:

1. Teacher uses an arbitrary fixed standard that all are expected to attain or fail. All are evaluated in the same way with no accounting for individual differences.
2. Teacher uses fixed standards based on class performance.
3. Teacher judges child by rate of progress of others in the class, occasionally recognizing that he has individual needs.
4. Teacher judges the child by the child's own rate of progress with his individual needs, but over- or under-estimates his capabilities.
5. Teacher judges each pupil's contribution in terms of where he is, how he perceives things, and how rapidly he is able to change or improve.

DIMENSION	Using a Variety of Teaching Resources

Brief Statement of Orientation to the Dimension: This dimension refers to the degree to which the teacher's curriculum encompasses student needs and abilities, through a variety of resources involving multiple modalities.

Example of Descriptor 1: One text is assigned at the beginning of the course of study, and the teacher plows through it religiously, with no deviation.

Example of Descriptor 5: The teacher directed different pupils to different reference works, and assigned the Reader's Guide to one, a newspaper index to another, and the library card catalog to another as a means of introducing these particular pupils to sources of information new to them.

USING A VARIETY OF TEACHING RESOURCES

Descriptors:

1. Teacher mechanically sticks to the basic course of study and its teacher's guide.
2. There are few supplementary materials and/or pieces of equipment. The relationship between the basic course of study and the supplementary materials is not established.
3. The teacher uses supplementary resources mechanically or inappropriately.
4. The teacher appropriately utilizes supplementary resources.
5. There is a richness to the basic/supplementary whole. Different materials are available to supplement the basic concept in a variety of multi-media ways to meet the needs of a diverse student population with various learning modalities.

DIMENSION Control of Use of Materials

Brief Statement of Orientation to the Dimension: This dimension refers to the accessibility of materials or equipment and allows for development of responsibility for their use.

Example of Descriptor 1: Teacher does not allow students to have materials, such as crayons, except when she gives them out.

Example of Descriptor 5: Activity areas are provided with a variety of materials appropriate to the learning content.

CONTROL OF USE OF MATERIALS

Descriptors:

1. Teacher clearly and firmly directs use of materials or equipment.
2. Teacher directs use of materials or equipment most of the time.
3. Teacher and children fluctuate in determining choice and use of materials or equipment.
4. Children select materials or equipment to be used for the most part. Teacher remains in the background.
5. Children are free to select and use materials or equipment at will.

DIMENSION Use of Time

Brief Statement of Orientation to the Dimension: This dimension refers to the use of extra time available after scheduled tasks have been completed.

Example of Descriptor 1: The teacher tells the students in a reading group, "When you finish reading the story silently and the time is not up, re-read the story to yourselves."

Example of Descriptor 5: The teacher finds that the math activity finishes fifteen minutes earlier than she had anticipated. She announces to the class that they may sit with a friend and do an art activity of their choice during this time.

USE OF TIME

Descriptors:

1. Teacher requires students to sit quietly and wait for others.
2. The teacher fills up empty time periods with activity which is designed as "busy work".
3. The teacher allows extra time to be used for finishing assignments or for beginning homework.
4. During extra or unplanned time, the teacher designates creative social, or interest level activities.
5. During extra or unplanned time, the teacher permits students to select creative, social, or interest level activities.

DIMENSION Flexibility/Spontaneity

Brief Statement of Orientation to the Dimension: This dimension refers to the degree and amount that a teacher will change and reorganize lessons, activities, classroom structure and classroom schedule. It also refers to the ability of a teacher to use spontaneous occurrences in the classroom to motivate learning and stimulate student interest.

Example of Descriptor 1: Teacher says, "I don't care if it has stopped raining. You finish your spelling and then we'll go out to play." Teacher notices that Michael appears to be interested in a small spider that is on his desk. She tells his to throw the spider out the window and get back to his work.

Example of Descriptor 5: John went to the teacher and said he was tired of reading and wanted to do math for a while. The teacher said it was all right. During a reading lesson, one of the children notices a rainbow that has appeared. The teacher stops the task they are doing in order that everyone might see it. She follows this up by having a discussion about rainbows and why they occur.

FLEXIBILITY/SPONTANEITY

Descriptors:

1a. Teacher rigidly sticks to lesson plans "no matter what." Teacher becomes immobilized and confused in emergency situations or under severe stress. Teacher does not allow students to freely express themselves by avoiding situations which might deviate from what she has planned for the class to do.

1b. Teacher is so excessively flexible as to attend to tangents at the expense of the lesson.

2. Teacher lesson plans are changed only when affected by changes in the classroom environment, special physical disabilities of the student, or administrative mandates. Very structured classroom. Teacher avoids and discourages comments not directly related to subject.

3. Students stay in their desks except during special teacher-planned activities. Students are sometimes asked if they would like to do special learning project. Teacher shows some interest in spontaneous occurrences by making comment about event, however, after comment is made goes back to regular schedule.

4. Students have some input into classroom activities and planning. Occasionally, teacher varies from planned activities and scheduling. Teacher allows sharing of events by the students and does not become alarmed when lesson deviates from planned activitiy.

5. Teacher adjusts easily to change in behavior of students. When appropriate, children can participate in various learning activities according to their preference, Children have a choice of areas in which to work. Teacher capitalizes on unexpected incidents that arise during class time and encourages students to freely express themselves.

DIMENSION Pacing Communication

Brief Statement of Orientation to the Dimension: This dimension refers to the amount of time allowed for a child to complete a response. It refers to the degree to which the teacher paces questioning so that each student is able to participate effectively.

Example of Descriptor 1: "Two plus six is eight, isn't it, Peter?" (Peter hesitates, thinking there must be a "catch"... otherwise why would the teacher answer her own question?)

Example of Descriptor 5: Teacher asks Johnny a question, when he hesitates she rewords the question for better understanding so that he is able to answer it.

PACING COMMUNICATION

Descriptors:

1. It really isn't a "question" that the teacher "asks" inasmuch as she answers it herself.
2. The teacher moves on (to another student and/or question) before giving the student an ample opportunity to respond.
3. The teacher gives the student ample time to respond before moving on.
4. The teacher restates or clarifies the question to aid the student in responding.
5. The teacher gives "hints" to aid the student in responding.

DIMENSION Clarity

Brief Statement of Orientation to the Dimension: This dimension refers to the clarity of instructions and expectations conveyed to the students.

Example of Descriptor 1: The teacher who is vague or who demonstrates a lack of clarity rarely states the goals or objectives of a lesson. If he does, the students do not understand what they are to do and why they are doing it. Lessons and activities are not well organized and students rarely complete tasks without confusion. Students ask questions that suggest confusion or lack of understanding of something that was discussed or directions that have been given.

Example of Descriptor 5: The teacher who is clear states or implies goals and objectives of lessons in such a way that students understand them. The teacher's vocabulary is appropriate. The students know what they are supposed to do and why. Students can follow the teacher's explanations. Ample examples are offered, relating new information to past experiences. Instructions and explanations are completed. Presentations and activities are well organized. Students carry tasks to completion without confusion.

CLARITY

Descriptors:

1. The teacher presents material in a vague and disorganized way. He talks in generalities and may use words that students do not comprehend. He rarely gives examples and seldom completes instructions or explanations. Students show a low degree of understanding and exhibit much confusion.
2. This teacher has difficulty in getting his point across. He gives few or poor examples and may use words that students do not comprehend. Many students do not seem to understand and there is considerable evidence of confusion. Students must turn to one another for help.
3. This teacher's instructions are mostly clear. He tries hard to get his point across. When students ask questions he usually provides an adequate answer by presenting alternative explanations or by using a different choice or words. Students seem satisfied. There is more evidence of understanding than uncertainty.
4. This teacher comes across as clear and organized. Although his language level is appropriate for most of the class, it may be inappropraite for a few of the students. He provides a sufficient number of good examples and usually completes instructions and explanations. There is little evidence of uncertainty.
5. This teacher presents material in an explicit, logical and organized manner. He uses an appropriate language level. He illustrates generalities with ample specific examples and carries all instructions and explanations through to completion. He makes sure that all of the students understand.

DIMENSION Academic Feedback

Brief Statement of Orientation to the Dimension: This dimension refers to the extent of communication to the student of information about the adequacy, acceptability, completeness, or correctness of student response and directions to assist the learner toward improved performance.

Example of Descriptor 1: Effective feedback indicates to the student the specific characteristics of the response that make it adequate or inadequate, acceptable or unacceptable, complete or incomplete, correct or incorrect. In the case of aesthetics, the indicator may be "pleasant or unpleasant, creative or uncreative, etc." Here the teacher indicates to students further learning activities for improved performance.

Example of Descriptor 5: Ineffective feedback does not provide the student with specific information about student response and therefore has little or no effect on improving performance. Feedback is ineffective if it is very general, inconsistent, or unclear in nature. The teacher does not explain to the student what should be done to improve performance.

ACADEMIC FEEDBACK

Descriptors:

1. This teacher very seldom responds to pupil s concerning their attempts to learn (such as oral or written work or carry out some skill). The student usually finds out about progress when reports are given at the end of a grading period.

2. Occasionally the teacher responds to pupil's attempts to learn. The responses are usually general such as "B", "OK", or "Good" without details as to what is good or bad about it.

3. The teacher usually responds to pupil's attempts to learn with general responses (such as "B", "OK", or "Good"). However, some specific comments about the overall quality of the work are occasionally offered.

4. Usually the teacher only lets pupils know which responses are right or wrong, he (she) also points out what is right or wrong about them, and occasionally offers suggestions for improvement.

5. This teacher consistently lets pupils know which responses are right or wrong, points out what is right or wrong about them and assigns the student learning activities to improve his performance.

DIMENSION Questioning Techniques

Brief Statement of Orientation to the Dimension: This dimension refers to the level of understanding explored by a teacher using questions ranging from one word responses to those requiring reasoning and/or exploration.

Example of Descriptor 1: "Who found the cave where the bear was living?"

Example of Descriptor 5: "How would you know if the bear was dead or not?"

QUESTIONING TECHNIQUES

Descriptors:

1. Teacher administers closed questioning: asks questions that are content oriented and have only one specific answer.
2. Teacher may accept more than one answer for a question, but steers class back to one particular answer declaring it the "right" answer.
3. Teacher uses a combination of open-ended and closed questioning techniques.
4. The teacher asks questions to which several answers may be acceptable, but none is clearly right or wrong.
5. The teacher asks questions which are open-ended, allow for reasoning and/or exploration and have no specific answer.

DIMENSION Consistency of Message

Brief Statement of Orientation to the Dimension: This dimension refers to the follow through of the teacher concerning specific verbal directions or consequences expressed by her during class activities.

Example of Descriptor 1: Names of students who are to stay after school are placed on the blackboard. Teacher does not keep these students after school.

Example of Descriptor 5: "If you finish your math, you may work on your independent projects." Only students finishing their math were allowed to work on their independent projects.

CONSISTENCY OF MESSAGE

Descriptors:

1. Inconsistency in message and action by the teacher. No follow through with proposed action by teacher.
2. Teacher is vague in giving directions. She is vague in following through.
3. The teacher gives direction and follows through for some of the children.
4. The teacher gives a direction and follows through most of the time. A verbal explanation is given to child by teacher in those instances in which she does not follow through.
5. Teacher gives a direction and then follows up on it. There is consistency in message and action by the teacher.

DIMENSION Use of Student Ideas

Brief Statement of Orientation to the Dimension: This dimension refers to the acceptance or utilization of student ideas by the teacher.

Example of Descriptor 1: The teacher that is dictatorial and will not deal with opinions or questions concerning classroom activity supresses student ideas.

Example of Descriptor 5: The teacher that optimizes this dimension systematically solicits, listens to, accepts, and uses student ideas.

USE OF STUDENT IDEAS

Descriptors:

1. This teacher actively suppresses student ideas either by indicating that they have no place or by being negative and punishing when student ideas emerge.
2. By structuring classroom activities in such a manner that student ideas are not given real attention, the teacher discourages the offering of student ideas.
3. This teacher appears to listen to student ideas and while tolerant of them generally does not use them.
4. This teacher allows verbal expression and accepts student ideas. However, there is only limited evidence that the teacher actually alters classroom activities based on student ideas.
5. This teacher seeks out student ideas and even provides opportunity for student input into instructional and/or other classroom activity decision-making.

COS* RECORDING FORM

Teacher Name _____ Data Collector _____

			DIMENSION	Page	R1	NOTES	R2
ATMOSPHERE OF THE CLASS	Teacher Characteristics		Warmth	1			
			Enthusiasm	2			
			Openness to Fallibility	3			
			Reaction to Emotions	4			
	Classroom Interaction		Classroom Conviviality	5			
			Equity	6			
			Student Involvement	7			
			Student Cooperation	8			
INSTRUCTIONAL IMPLEMENTATION	CLASSROOM ORGANIZATION AND OPERATION	Physical Flexibility	Teacher Mobility	9			
			Student Mobility	10			
			Classroom Arrangement	11			
		Behavior Management	Positive Reinforcement	12			
			Effectiveness of Reinforcement	13			
			Responding to Inappropriate Student Behavior	14			
			Use of Punishment	15			
	INSTRUCTIONAL TECHNIQUES	Conducting the Lesson	Introducing the Lesson	16			
			Individualizing Instruction	17			
			Monitoring Learning	18			
			Guiding the Work Session	19			
			Pacing Learning Tasks	20			
			Individualized Evaluation	21			
			Using a Variety of Teaching Resources	22			
			Control of Use of Materials	23			
			Use of Time	24			
			Flexibility/Spontaneity	25			
		Communication Style	Pacing Communication	26			
			Clarity	27			
			Academic Feedback	28			
			Questioning Techniques	29			
			Consistency of Message	30			
			Use of Student Ideas	31			

The COS is a set of 31 Classroom Observation Scales (COS) developed by Project S.E.C.T. (Special Education Competencies for Teachers), a Title IV developmental project funded by the State of Georgia through the Metropolitan Cooperative Educational Service Agency, 2268 Adams Drive, N.W., Atlanta, Georgia 30318.

APPENDIX C

Data Table 1a

STUDY 1: Expert Panel Ranking and Q-Sort of Special Education Teachers
(H = Hire, A = Alternate, N = Not Hire)

	NON-SPECIAL EDUCATION EXPERTS									SPECIAL EDUCATION EXPERTS									
Experts	A			B			C			D			E			F			
	H	A	N	H	A	N	H	A	N	H	A	N	H	A	N	H	A	N	
Teachers 1	10				35				46	10				38				60	
2		49			44			40			50				56		50		
3	20				50				55		38				44		55		
4			51			58			52		45				62			56	
5	26			31				36		11			18			15			
6			50			62		25		35				32			53		
7		40		4			13			7			4			13			
8	11			17				20		17				23		6			
9	13				40		1					63	12			34			
10		34		15			11			2			5			11			
11	8			1				33			51		17			20			
12		38		9				27			54				52	39			
13		33		14				31		12				24		10			
14			52		41				42			60			46			57	
15			57	21				34		25			14			2			
16	14			19			19			30				42		31			
17		42				60			45	21					60		49		
18		37		27				12		27				41		29			
19	16			11			5			11				25		21			
20	23				39				58	22			10			8			
21	17			26				21			46			36			42		
22	24				55				63		49			34		28			
23		28			46			30		6				40		18			
24			58	10			10			9				43		23			
25	4			7			14			15			11			12			
26	7			16			8			3			3			4			
27	22	4			45		16			14				26		27			
28		44		30			12			28			20			5			
29		36		20					31		40			31			44		
30	6			29			7			20			8			19			
31	3			22					44	13					55	30			
32	19			18				23		33					45	7			
33	2			8				29		8			16			35			
34		46				59			62		55				63			65	
35		29			42			38			39		9			22			
36			53	24					53		41			28			48		
37			64			57			57			61		27				59	
38	1			6			2			5			13			9			
39		39			49				59	23				29			43		
40		41			43			39		4	43				49	38			
41			55		56				51		47				58		51		
42			56	28			18			18					53	17			
43			59			64			50	29			19			24			
44	18			23			17				53				50		45		
45			60		47				59	32					57		52		
46	25			2				26		24			22			26			
47	21			25				37				58			48	40			
48	12			12			15			26			6			6			
49	9			32			6			4			7			16			
50	15			33			4			1			15			3			
51		45			54			24		34				39		37			
52		31		13				22			44			33		33			
53	5			5			9			36			1			14			
54			61		51				43		42			37			47		
55		30			37			35			52				47		54		
56			65			63			64			64			59			64	
57		35		34			3			19			2			1			
58		47			36				41	37					51	36			
59			62			61			60			62			64			61	
60		43			38				56			65		30				58	
61			54		48				48			57			61			63	
62		48			53				54		56			35			46		
63		32			52				47		48				54		41		
64			63			65			65			59			65			62	
65		27		3				28		16			21			12			
TOTALS	26	23	16	34	22	9	19	21	25	37	19	9	22	21	22	40	15	10	= 390
%	40	35	25	52	34	14	29	32	39	57	29	14	34	32	34	62	23	15	
EXPERT GROUP				79	66	50							99	55	41				
%				40	34	26							51	28	21				
OVERALL							178	121	91										
%							46	31	23										

APPENDIX C

Data Table Ib

Study I: Table of mean ratings for 65 special education teachers by all data sources (DC = data collector, PT = peer teacher, PR = principal, S = student class mean).

ITEM:	SOURCE	EXPERT Q-SORT GROUP MEANS Hire	Alternate	Not Hire	ANOVA $F_{2,2df}$	Significance	Missing* Observations
TPM 1:	DC	3.6	3.3	2.9	12.12	.000	48
	PT	4.3	4.1	3.7	13.22	.000	18
	PR	4.2	4.1	4.0	1.25	.289	6
TPM 2:	DC	3.4	3.0	2.7	17.20	.000	18
	PT	4.5	4.4	3.9	12.22	.000	18
	PR	4.5	4.5	4.3	3.29	.039	24
TPM 3:	DC	3.3	2,8	2.4	21.16	.000	36
	PT	4.3	4.3	4.0	3.89	.021	30
	PR	4.3	4.0	4.0	1.84	.161	30
TPM 4:	DC	3.1	2.6	2.3	12.30	.000	132
	PT	4.1	3.9	3.6	3.90	.021	60
	PR	4.0	3.8	3.6	1.88	.154	66
COMPETENCY XX		3.9	3.8	3.5	11.73	.000	--
TPM 5:	DC	3.7	3.4	3.0	10.59	.000	6
	PT	4.6	4.4	4.3	4.44	.012	18
	PR	4.5	4.6	4.5	1.18	.308	24
TPM 7:	DC[2]	3.7	3.4	3.1	12.09	.000	6
	PT	4.3	4.3	4.0	2.09	.125	24
	PR	4.2	4.5	4.4	2.74	.066	30
TPM 8:	DC	3.5	3.2	3.0	9.94	.000	30
	PT	4.2	4.3	4.2	.55	.580	30
	PR	4.4	4.6	4.4	.73	.481	30
COMPETENCY XIX		4.1	4.0	3.9	3.07	.048	--
CP 1:	DC	3.3	3.1	2.2	10.65	.000	168
	PT	4.1	4.2	3.8	3.82	.023	78
	PR	4.0	4.1	4.1	.18	.833	66
	S	3.1	3.2	3.3	.29	.745	174
CP 2:	DC	4.0	3.9	3.3	10.89	.000	48
	PT	4.5	4.5	4.2	5.82	.003	6
	PR	4.5	4.6	4.5	.25	.783	6
	S	4.2	4.0	4.0	1.55	.215	168
CP 3:	DC	3.6	3.4	3.0	13.78	.000	48
	PT	4.6	4.5	4.4	1.98	.140	12
	PR	4.4	4.5	4.4	.24	.786	6
	S	4.4	4.5	4.4	.47	.626	168

*Each teacher was sorted by each of the six judges and therefore could fall into several groups in the Q-sort. Consequently, a total of 390 observations (65 x 6) are possible. Limitations of independent observations are to be noted.

ITEM:	SOURCE	EXPERT Q-SORT GROUP MEANS			ANOVA		Missing*
		Hire	Alternate	Not Hire	$F_{2,2df}$	Significance	Observations
CP 4:	DC[2]	3.6	3.3	2.9	19.81	.000	0
	PT	4.5	4.5	4.0	11.77	.000	18
	PR	4.4	4.5	4.3	2.69	.069	6
	S	3.4	4.0	4.0	7.27	.001	168
CP 5:	DC	3.5	3.4	3.1	5.77	.003	48
	PT	4.3	4.2	4.0	3.58	.029	30
	PR	4.2	4.2	4.1	.63	.534	24
	S	4.5	4.3	4.2	1.05	.351	168
COMPETENCY XVIII		4.1	4.1	3.8	11.20	.000	--
CP 6:	DC	3.8	3.7	3.1	17.90	.000	36
	PT	4.6	4.6	4.5	1.08	.342	18
	PR	4.5	4.6	4.6	.82	.440	30
	S	4.4	4.4	4.6	3.23	.042	168
CP 7:	DC	3.2	2.8	2.3	12.02	.000	222
	PT	4.2	4.0	3.7	8.48	.000	42
	PR	4.3	4.1	4.0	1.74	.177	42
	S	4.0	4.1	4.3	1.98	.140	174
CP 8:	DC	3.7	3.4	3.1	11.60	.000	96
	PT	4.6	4.7	4.2	13.23	.000	36
	PR	4.6	4.5	4.6	.02	.976	36
	S	4.2	4.4	4.2	.87	.423	174
CP 9:	DC[2]	3.8	3.6	3.2	33.85	.000	24
	PT	4.7	4.6	4.4	8.21	.000	-
	PR[2]	4.7	4.6	4.5	1.19	.305	24
	S	4.4	4.5	4.4	.04	.959	168
CP 10:	DC	3.8	3.4	3.1	23.59	.000	12
	PT[2]	4.5	4.5	4.4	.87	.421	6
	PR	4.6	4.6	4.5	.89	.412	72
	S	4.4	4.4	4.4	.11	.893	180
COMPETENCY XVII		4.3	4.2	4.0	13.32	.000	--
CP 11:	DC	3.7	3.6	3.3	6.36	.002	108
	PT	4.2	4.3	4.0	3.84	.022	36
	PR	4.4	4.4	4.2	3.18	.043	54
	S	3.5	3,8	3.3	3.10	.047	180
CP 12:	DC	3.7	3.6	3.2	15.84	.000	30
	PT	4.5	4.5	4.3	2.43	.090	48
	PR[2]	4.4	4.5	4.2	1.81	.165	30
	S	3.6	3.7	4.0	3.65	.028	180
CP 13:	DC[2]	4.0	3.6	3.2	21.92	.000	12
	PT	4.9	4.9	4.6	7.94	.000	6
	PR	4.8	4.8	4.6	3.40	.035	12
	S	4.5	4.5	4.2	1.49	.227	174
COMPETENCY XVI		4.3	4.2	4.0	14.04	.000	--
CP 14:	DC[2]	3.9	3.6	3.2	15.47	.000	30
	PT[2]	4.7	4.6	4.3	5.38	.005	30
	PR	4.5	4.6	4.5	1.02	.362	54
	S	3.9	3.9	4.1	.65	.523	180
CP 15:	DC	3.4	3.4	2.9	11.60	.000	60
	PT	4.4	4.3	3.9	9.94	.000	30
	PR	4.4	4.5	4.4	.99	.374	36
	S	4.3	4.1	4.2	1.27	.282	174

ITEM: Source	EXPERT Q-SORT GROUP MEANS			ANOVA		Missing*
	Hire	Alternate	Not Hire	$F_{2,2df}$	Significance	Observations
CP 16: DC [2]	4.1	3.8	3.4	13.70	.000	6
PT [2]	4.8	4.7	4.5	7.67	.001	0
PR	4.4	4.6	4.4	1.00	.369	24
S	4.4	4.5	4.5	.16	.849	174
CP 17: DC	3.8	3.6	3.0	22.85	.000	36
PT	4.5	4.5	4.2	3.69	.026	36
PR	4.2	4.3	4.3	.98	.683	48
S	4.4	4.4	.43	.38	.682	174
COMPETENCY XV	4.3	4.2	3.9	14.21	.000	--
CP 18: DC	3.5	3.0	3.0	8.28	.000	24
PT [2]	4.3	3.8	3.8	6.12	.002	18
PR	4.2	4.3	4.3	.45	.641	42
S	4.5	4.3	4.3	3.12	.046	186
CP 19: DC [2]	3.9	3.7	3.2	15.10	.000	6
PT [1]	4.5	4.4	4.1	6.39	.002	12
PR [2]	4.4	4.5	4.2	2.35	.097	6
S	3.9	4.0	3.8	.68	.507	180
CP 20: DC	3.6	3.3	3.0	8.40	.000	162
PT	4.5	4.5	4.2	4.96	.008	54
PR	4.4	4.3	4.1	3.97	.020	48
S	4.5	4.5	4.7	1.15	.320	180
COMPETENCY XIV	4.2	4.1	3.9	8.85	.000	--
CP 21: DC	3.9	3.7	3.1	21.35	.000	18
PT [2]	4.6	4.7	4.5	4.84	.008	24
PR	4.6	4.7	4.6	.18	.839	42
S	4.5	4.4	4.6	.55	.576	186
CP 22: DC	3.0	2.9	3.0	.26	.773	294
PT	3.9	4.4	4.0	5.19	.006	150
PR	4.2	4.4	4.2	2.27	.106	96
S	4.2	3.9	3.9	1.75	.177	186
CP 23: DC	3.0	3.0	3.3	1.59	.208	246
PT	4.4	4.3	4.0	3.05	.049	108
PR	4.3	4.4	4.2	.55	.578	108
S	3.9	4.2	4.0	1.39	.252	186
COMPETENCY XIII	4.2	4.2	4.0	3.17	.043	--
CP 24: DC	3.9	3.7	3.6	4.91	.008	48
PT	4.3	4.4	3.8	12.84	.000	90
PR	4.4	4.6	4.6	3.14	.045	60
S	3.9	3.7	3.8	.49	.611	186
CP 25: DC	3.6	3.4	3.1	8.46	.000	150
PT	4.4	4.5	4.5	1.14	.322	24
PR	4.1	4.5	4.3	4.33	.014	18
S	3.9	3.7	3.1	5.30	.030	180
CP 26: DC	3.6	3.4	4.0	11.96	.000	12
PT	4.2	4.3	4.3	1.74	.177	42
PR	4.0	4.3	4.2	4.78	.009	30
S	4.2	4.3	3.1	1.17	.311	192

ITEM:	SOURCE	EXPERT Q-SORT GROUP MEANS Hire	Alternate	Not Hire	ANOVA $F_{2,2df}$	Significance	Missing* Observations
CP 27:	DC	3.8	3.4	3.1	21.54	.000	36
	PT	4.3	4.3	3.9	5.33	.005	48
	PR	4.1	4.2	4.3	.91	.403	12
	S	4.1	4.2	4.4	1.81	.166	180
COMPETENCY XII		4.0	4.1	3.9	1.25	.288	--
CP 28:	DC	3.3	2.9	3.0	5.05	.008	258
	PT	4.0	4.0	3.8	.51	.602	120
	PR	4.2	4.3	4.4	.90	.407	96
	S	3.3	3.5	3.5	1.18	.310	180
CP 29:	DC	4.1	3.4	3.9	7.46	.001	312
	PT	3.8	4.1	3.9	1.40	.248	156
	PR	4.0	4.2	4.1	1.55	.215	126
	S	3.5	3.6	3.6	.57	.564	186
CP 30:	DC	3.8	3.6	3.1	6/67	.002	222
	PT	4.2	4.3	4.0	1.29	.377	42
	PR	4.3	4.5	4.3	1.54	.216	30
	S	3.4	3.6	3.4	1.04	.356	186
COMPETENCY XI		3.0	4.1	3.8	33.32	.037	--
IS 1:	DC[2]	4.1	4.0	3.7	7.28	.001	0
	PT	4.7	4.8	4.1	24.48	.000	30
	PR	4.7	4.7	4.4	5.12	.006	18
	S	4.1	4.0	4.3	1.02	.362	198
IS 2:	DC[2]	3.7	3.5	3.2	6.77	.001	24
	PT	4.8	4.7	4.2	20.35	.000	36
	PR[2]	4.9	4.8	4.5	12.54	.000	18
	S	4.6	4.4	4.4	.84	.434	186
COMPETENCY X		4.5	4.4	4.0	18.81	.000	--
IS 3:	DC	3.6	3.3	2.7	11.94	.000	138
	PT	4.8	4.8	4.4	15.76	.000	36
	PR	4.8	4.9	4.7	2.36	.096	18
	S	4.1	4.3	4.4	1.01	.367	186
IS 4:	DC	4.2	4.1	3.6	12.70	.000	0
	PT	4.9	4.9	4.3	26.63	.000	36
	PR[2]	4.8	4.9	4.4	12.39	.000	18
	S	4.6	4.7	4.2	8.37	.000	186
IS 5:	DC	4.0	3.9	3.4	18.16	.000	18
	PT[2]	4.8	4.9	4.4	12.85	.000	36
	PR[2]	4.8	4.4	4.4	16.29	.000	24
	S	4.5	4.3	4.2	2.26	.107	186
IS 6:	DC	4.0	3.9	3.5	9.44	.000	18
	PT[2]	4.8	4.8	4.5	6.76	.001	36
	PR	4.8	4.8	4.6	5.72	.004	30
	S	4.3	4.3	4.4	.24	.788	186
IS 7:	DC	3.8	3.7	3.1	11.33	.000	162
	PT	4.6	4.7	4.2	9.22	.000	36
	PR	4.6	4.7	4.3	5.44	.005	24
	S	4.3	4.4	4.4	.36	.699	186
COMPETENCY IX		4.5	4.5	4.1	23.70	.000	--
IS 8:	DC	3.7	3.5	3.1	7.40	.001	96
	PT	4.8	4.9	4.3	17.68	.000	48
	PR	4.7	4.8	4.4	11.61	.000	24
	S	4.6	4.8	4.7	1.43	.242	186

ITEM:	SOURCE	EXPERT Q-SORT GROUP MEANS Hire	Alternate	Not Hire	ANOVA $F_{2,2df}$	Significance	Missing* Observations
IS 9:	DC	3.8	3.6	3.2	6.84	.001	90
	PT [2]	4.9	4.3	4.3	15.40	.000	36
	PR	4.6	4.7	4.2	7.26	.001	36
	S	4.6	4.4	4.3	3.13	.046	186
IS 10:	DC	4.2	4.6	3.8	7.24	.001	276
	PT	4.9	4.9	4.5	22.43	.000	54
	PR	4.6	4.7	4.4	3.41	.034	30
	S	4.4	4.3	4.3	.36	.701	186
COMPETENCY VIII		4.5	4.5	4.1	16.84	.000	--
IS 11:	DC	3.2	3.2	1.9	4.77	.013	336
	PT	4.8	4.8	4.2	23.54	.000	66
	PR	4.7	4.7	4.3	7.89	.000	36
	S	4.6	4.4	4.3	4.05	.019	192
IS 12:	DC [2]	5.0	5.0	5.0	0.00	1.000	334
	PT	5.0	5.0	4.5	25.16	.0000	66
	PR	4.7	4.9	4.3	10.65	.000	42
	S	4.2	4.0	4.1	.91	.405	186
COMPETENCY VII		4.7	4.6	4.2	17.24	.000	--
TPM 8:	DC	3.6	3.4	3.3	5.16	.006	54
	PT	4.3	4.3	4.2	.10	.903	48
	PR	4.0	4.1	4.4	5.46	.005	42
TPM 9:	DC	3.9	3.3	3.2	17.54	.000	126
	PT	4.4	4.4	4.2	1.14	.320	76
	PR	4.2	4.3	4.4	1.67	.181	108
TPM 10:	DC	3.6	3.5	3.4	1.08	.341	162
	PT	4.4	4.5	4.5	.91	.404	78
	PR	4.3	4.2	4.3	.20	.815	66
COMPETENCY VI		4.0	3.9	3.9	.14	.873	--
TPM 11:	DC	4.4	3.9	3.7	22.78	.000	54
	PT	4.8	4.8	4.5	4.20	.016	54
	PR	4.5	4.7	4.7	2.18	.114	36
TPM 12:	DC	3.8	3.7	3.3	11.89	.000	24
	PT	4.8	4.8	4.4	9.04	.000	30
	PR	4.7	4.6	4.6	1.09	.336	30
COMPETENCY V		4.5	4.4	4.1	9.41	.000	--
TPM 13:	DC	3.0	3.0	2.8	1.56	.213	60
	PT	4.1	4.0	4.0	.23	.793	48
	PR	4.1	4.0	4.0	.02	.983	30
TPM 14:	DC	3.2	2.9	2.6	9.89	.000	126
	PT	4.0	4.0	3.7	3.40	.035	42
	PR [2]	4.3	4.0	4.1	2.21	.112	30
COMPETENCY IV		3.8	3.7	3.6	.27	.768	--
PS 1:	PR	5.0	5.0	5.0	0	1.000	384
	PT	4.9	4.9	4.8	2.19	.114	42
	PT	4.8	4.8	4.9	1.14	.322	66
PS 2:	PR	5.0	5.0	5.0	0	1.000	384
	PT	4.8	4.7	4.7	.93	.396	36
	PT	4.7	4.6	4.5	1.98	.140	72

ITEM:	SOURCE	EXPERT Q-SORT GROUP MEANS Hire	Alternate	Not Hire	ANOVA $F_{2,2df}$	Significance	Missing* Observations
PS 3:	PR	4.0	4.0	4.0	0	1.000	384
	PT	5.0	4.9	4.7	13.90	.000	36
	PT	5.0	5.0	4.8	11.34	.000	72
PS 4:	PR	2.0	2.0	2.0	0	1.000	384
	PT	4.9	4.8	4.7	3.00	.051	36
	PT	4.8	4.8	4.7	3.00	.051	66
	PT	4.0	4.0	4.0	0	1.000	384
COMPETENCY III		4.9	4.8	4.7	.40	.668	--
PS 5:	PR	5.0	5.0	5.0	0	1.000	384
	PT	4.6	4.7	4.4	1.70	.184	54
	PT	4.9	4.8	4.8	.004	.996	108
PS 6:	PR	5.0	5.0	5.0	0	1.000	384
	PT	4.4	4.4	4.2	1.69	.186	72
	PT	4.6	4.6	4.5	.08	.926	120
PS 7:	PR	5.0	5.0	5.0	0	1.000	384
	PT	4.5	4.5	4.2	1.73	.179	54
	PT	4.6	4.6	4.7	.95	.389	108
PS 8:	PR	1.0	1.0	1.0	0	1.000	384
	PT	4.1	4.3	4.3	.70	.498	72
	PT	4.2	4.6	4.7	7.43	.001	132
PS 9:	PR	2.0	2.0	2.0	0	1.000	384
	PT	4.6	4.7	4.5	3.07	.048	66
	PT	4.6	4.7	4.3	1.69	.186	90
	PT	4.0	4.0	4.0	0	1.000	384
COMPETENCY II		4.4	4.5	4.4	1.85	.159	--
PS 10:	PT	4.9	4.9	4.6	8.10	.000	54
	PT	4.9	4.9	4.8	6.87	.001	66
PS 11:	PT	4.8	4.4	4.3	5.55	.004	174
	PT	4.9	4.8	4.6	8.80	.000	150
PS 12:	PT	4.8	4.8	4.8	.69	.501	42
	PT	4.9	4.8	4.8	.84	.434	72
PS 13:	PT	4.9	4.8	4.7	3.99	.019	42
	PT	4.9	4.9	4.8	3.90	.021	66
COMPETENCY I		4.9	4.8	4.7	.91	.404	--
COBS 1:	DC [2]	3.4	3.4	2.9	12.99	.000	6
2:	DC	3.3	3.2	2.8	16.96	.000	6
3:	DC	3.4	3.4	2.7	21.35	.000	90
4:	DC	3.4	3.3	2.9	11.83	.000	30
5:	DC	3.6	3.3	3.0	11.11	.000	0
6:	DC [2]	4.0	3.7	2.8	29.18	.000	18
7	DC	3.6	3.5	3.1	6.69	.001	18
8:	DC	3.4	3.1	3.1	3.54	.030	66
9:	DC	2.8	2.5	2.3	1.45	.236	18
10:	DC	2.6	2.3	2.5	2.21	.111	18
11:	DC	2.9	2.3	2.3	7.94	.000	12
12:	DC	3.9	3.4	3.2	18.18	.000	24
13:	DC	3.4	3.1	2.6	11.89	.000	12
14:	DC	3.4	3.0	2.8	10.58	.000	78
15:	DC	3.6	3.6	2.8	7.50	.001	282

ITEM: SOURCE	EXPERT Q-SORT GROUP MEANS			ANOVA		Missing*
	Hire	Alternate	Not Hire	$F_{2,2df}$	Significance	Observations
COBS 16: DC	3.0	2.8	2.4	18.94	.000	6
17: DC[2]	3.5	3.3	2.8	4.77	.009	0
18: DC[2]	4.1	3.9	3.4	12.69	.000	30
19: DC[2]	3.9	3.6	3.2	18.95	.000	0
20: DC[2]	3.6	3.4	2.9	14.96	.000	6
21: DC	4.1	3.7	3.0	25.67	.000	48
22: DC	3.6	3.3	2.8	18.55	.000	12
23: DC	2.2	2.1	2.2	.73	.485	0
24: DC	2.6	2.5	2.3	1.17	.312	108
25: DC	2.8	2.8	2.7	.20	.817	6
26: DC[2]	3.9	3.8	3.3	9.86	.000	12
27: DC[2]	3.8	3.7	3.2	15.20	.000	0
28: DC[2]	3.5	3.1	2.8	16.44	.000	6
29: DC	2.4	2.6	2.4	1.96	.142	24
30: DC[2]	3.9	3.7	3.0	20.06	.000	12
31: DC	3.1	3.2	3.0	1.07	.345	30

[1] The variance of the mean ratings of these items by this particular data assessment source produced a significant F statistic ($p < .05$) when analyzed by beginning (0-3 years) and experienced (4 or more years) teachers. See Special Study 1D.

[2] The variance of the mean ratings of this item by this particular data assessment source produced a significant F statistic ($p < .05$) when analyzed by special education teaching assignment (EMR, LD, BD, etc.). See Special Study 1C.

Data Table IIa

Data Collector Rating Distribution by Item

Test	Item	Frequency							Percentage						
		0	1	2	3	4	5	9	0	1	2	3	4	5	9
TPM	1	8	6	5	12	30	4	-	12	9	8	18	46	6	-
	2	3	3	12	25	18	4	-	5	5	18	38	28	6	-
	3	6	6	14	20	11	5	-	9	9	22	31	22	8	-
	4	22	8	9	11	13	2	-	34	12	14	17	20	3	-
	5	1	7	5	18	20	14	-	2	11	8	28	31	22	-
	6	1	3	6	23	23	9	-	2	5	9	35	35	14	-
	7	5	-	12	23	21	4	-	8	-	18	35	32	6	-
	8	9	1	2	27	22	4	-	14	2	3	42	34	6	-
	9	21	1	2	20	15	6		32	2	3	31	23	9	-
	10	27	-	4	16	11	7	-	42	-	6	25	17	11	-
	11	9	1	-	15	16	24	-	14	2	-	23	25	37	-
	12	4	-	4	23	24	10	-	6	-	6	35	37	15	-
	13	10	2	10	34	6	3	-	15	3	15	52	9	5	-
	14	20	5	1	31	3	4	-	31	8	2	48	5	6	-
CP	1	28	11	1	9	8	8	-	43	17	2	14	12	12	-
	2	8	1	6	12	22	16	-	12	2	9	18	34	25	-
	3	8	-	10	20	19	8	-	12	-	15	31	29	12	-
	4	-	-	11	24	26	4	-	-	-	17	37	40	6	-
	5	8	2	5	19	30	1	-	12	3	8	29	46	2	-
	6	6	2	2	20	30	5		9	3	3	31	46	8	-
	7	37	4	4	11	8	1	-	57	6	6	17	12	2	-
	8	16	1	1	25	18	4	-	25	2	2	38	28	6	-
	9	4	1	-	25	31	4	-	6	2	-	38	48	6	-
	10	2	-	8	19	30	6	-	3	-	12	29	46	9	-
	11	18	-	3	17	24	3	-	28	-	5	26	37	5	-
	12	5		2	26	25	6	-	8	2	3	40	38	9	-
	13	2	2	3	21	24	13	-	3	3	5	32	37	20	-
	14	5	2	4	21	17	16	-	8	3	6	32	26	25	-
	15	10	1	6	25	22	1	-	15	2	9	38	34	2	-
	16	1	1	7	13	21	22	-	2	2	11	20	32	34	-
	17	6	4	2	20	22	11	-	9	6	3	31	34	17	-
	18	4	3	10	16	24	8	-	6	5	15	25	37	12	-
	19	1	1	8	14	20	12	-	2	2	12	22	45	18	-
	20	27	1	6	12	14	5	-	42	2	9	18	22	8	-
	21	3	2	3	21	24	12	-	5	3	5	32	37	18	-
	22	49	2	-	10	4	-	-	75	3	-	15	6	-	-
	23	41	-	7	9	8	-	-	63	-	11	14	12	-	-
	24	8	1	3	9	39	5	-	12	2	5	14	60	8	-
	25	25	-	6	14	17	3	-	38	-	9	22	26	5	-
	26	2	1	5	27	26	4	-	3	2	8	42	40	6	-
	27	6	-	5	25	22	7	-	9	-	8	38	34	11	-
	28	43	-	2	15	5	-	-	66	-	3	23	8	-	-
	29	52	-	-	4	1	2	-	80	-	-	6	11	3	-
	30	37	1	-	11	12	4	-	57	2	-	17	18	6	-
IS	1	-	1	6	8	28	22	-	-	2	9	12	43	34	-
	2	4	5	2	17	31	6	-	6	8	3	26	48	9	-
	3	21	4	6	11	13	8	2	32	6	9	17	20	12	-
	4	-	1	4	8	31	21	-	0	2	6	12	48	32	-
	5	3	-	5	13	30	14	-	5	-	8	20	46	22	-
	6	3	1	3	14	30	14	-	5	2	5	22	46	22	-
	7	26	1	5	12	26	11	-	40	2	8	12	26	11	-

Test	Item	Frequency							Percentage						
		0	1	2	3	4	5	9	0	1	2	3	4	5	9
IS	8	15	2	7	11	20	9	1	23	3	11	17	31	14	2
	9	16	3	5	11	19	11	-	25	5	8	17	29	17	-
	10	45	-	1	4	9	5	1	69	-	2	6	14	8	2
	11	54	1	4	1	1	2	2	83	2	6	2	2	3	3
	12	62	-	-	-	-	1	2	95	-	-	-	-	2	3
PS (peer)	1	2	-	-	1	9	48	5	3	-	-	2	14	74	8
	2	1	-	-	3	9	47	5	2	-	-	5	14	72	8
	3	-	-	1	-	3	55	6	-	-	2	-	5	85	9
	4	-	-	-	3	5	51	6	-	-	-	5	8	78	9
	5	3	1	1	3	10	41	6	5	2	2	5	15	63	9
	6	5	-	-	9	16	28	7	8	-	-	14	25	43	11
	7	4	1	3	4	12	36	5	6	2	5	6	18	55	8
	8	5	4	-	8	10	31	7	8	6	-	12	15	48	11
	9	4	-	1	4	9	40	7	6	-	2	6	14	62	11
	10	4	-	1	-	6	49	5	6	-	2	-	9	75	8
	11	20	1	-	5	4	26	9	31	2	-	8	6	40	14
	12	2	-	-	1	9	48	5	3	-	-	2	14	7	8
	13	7	1	-	2	3	52	5	3	2	-	3	5	80	8
PS (prin.)	1	-	-	-	-	10	44	11	-	-	-	-	15	68	17
	2	-	-	2	2	9	40	12	-	-	3	3	14	62	18
	3	1	-	-	-	4	49	11	2	-	-	-	6	75	17
	4	-	-	-	1	9	44	11	-	-	-	2	14	68	17
	5	6	-	-	-	7	40	12	9	-	-	-	11	62	18
	6	7	-	1	3	11	30	13	11	-	2	5	17	46	20
	7	6	-	-	1	16	30	12	9	-	-	2	25	46	18
	8	10	2	-	1	15	25	12	15	3	-	2	23	38	18
	9	3	-	-	5	5	40	12	5	-	-	8	8	62	18
	10	-	-	-		5	49	11	-	-	-	-	8	45	17
	11	11	-	1	-	5	34	14	17	-	2	-	8	52	2
	12	1	-	-	-	7	46	11	2	-	-	-	11	71	17
	13	-	-	-	1	5	48	11	-	-	-	2	8	74	17
COBS	1	-	1	12	20	29	2	1	-	2	18	31	45	3	2
	2	-	1	8	36	17	2	1	-	2	12	55	26	3	2
	3	15	2	4	28	13	3	-	23	3	6	43	20	5	-
	4	5	3	6	27	20	4	-	8	5	9	42	20	4	-
	5	-	2	7	30	19	7	-	-	3	11	46	29	11	-
	6	3	6	6	9	26	15	-	5	9	9	14	40	23	-
	7	3	1	8	28	12	13	-	5	2	12	43	18	20	-
	8	11	1	11	22	15	5	-	17	2	17	34	23	8	-
	9	3	17	16	4	18	7	-	5	26	25	6	28	11	-
	10	3	17	17	18	2	8	-	5	26	26	28	3	12	-
	11	2	16	20	8	13	6	-	3	25	31	12	20	9	-
	12	2	1	7	24	14	15	2	3	2	11	37	22	23	-
	13	1	9	4	32	7	11	1	2	14	6	49	11	17	2
	14	13	3	11	19	15	4	-	20	5	17	29	23	6	-
	15	47	1	3	4	9	1	-	42	2	5	6	14	2	-
	16	1	12	9	26	12	5	-	2	18	14	40	18	8	-
	17	-	15	5	15	7	23	-	-	23	8	23	11	35	-
	18	5	-	6	13	25	16	-	8	-	9	20	38	25	-
	19	-	2	-	32	18	13	-	-	3	-	49	28	20	-
	20	1	5	4	26	13	11	-	2	8	6	40	28	17	-

Test	Item	Frequency							Percentage						
		0	1	2	3	4	5	9	0	1	2	3	4	5	9
IBS	21	8	4	4	15	18	16	-	12	6	6	23	28	25	-
	22	2	3	12	17	23	8	-	3	5	18	26	35	12	-
	23	-	9	38	16	2	-	-	-	14	58	25	3	-	-
	24	18	17	9	4	14	3	-	28	26	14	6	22	5	-
	25	1	2	32	14	11	5	-	2	3	49	22	17	8	-
	26	2	3	4	18	18	20	-	3	5	6	28	28	31	-
	27	-	1	5	23	23	13	-	-	2	8	35	35	20	-
	28	1	-	19	22	13	10	-	2	-	29	34	20	15	-
	29	4	9	22	23	5	2	-	6	14	34	35	8	3	-
	30	2	2	8	18	18	17	-	3	3	3	12	28	26	-
	31	5	-	16	25	16	3	-	8	-	25	38	25	5	-

Data Table IIb

Original Factors in New Factors

New Factor	Original Factor	No. Items in Original Factor (Modified)	No. Items in New Factor
I. The Teacher	o Professionalism	2	9
	o Teacher Characteristics	7	
II. Planning and Individualization	o Planning	3	8
	o Individualization	5	
III. Verbal Interactions	o Instructions and Questions	5	14
	o Communication	9	
IV. Management	o Classroom Organization and Management	8	10
	o Behavior Management	2	
V. Instructional Methods	o Methods	7	11
	o Classroom Instruction	4	
	TOTAL	52	52

Data Table IIc

Items in New Factors

Factor	TPM	EP	IS	PS	COBS	No. of Items
I. The Teacher			1,2,4,5	3,4 (Peer)	1,2,4	9
II. Planning and Individualization	2,3,5,6, 7,12	16			17	8
III. Verbal Interaction		8,9,10, 12,13,17, 21			16,26,27, 28,29,30, 31	14
IV. Management		11,26,27			9,10,11, 12,13,22, 23	10
V. Instructional Materials		4,18,19	6		5,6,7,18, 19,20,25	11
						52

Data Table IId

Expert Q-Sort
(1 = hire, 2 = Alternate, 3 = Not Hire)

	EXPERT RATERS					
Teacher Number	1	2	3	4	5	6
1	1	1	1	2	2	1
2	1	1	1	2	2	1
3	1	2	3	2	2	1
4	1	2	1	2	2	1
5	2	3	3	3	3	2
6	3	1	1	2	2	1
7	1	1	1	1	1	1
8	1	1	2	1	1	1
9	3	1	2	1	1	1
10	1	1	1	1	1	1
11	1	1	2	1	1	1
12	2	2	2	3	3	2
13	1	2	3	2	2	3
14	1	1	2	2	2	2
15	1	1	2	2	2	1
16	2	1	2	2	2	1
17	1	1	2	1	1	1
18	1	1	1	1	1	1
19	3	2	3	3	3	2
20	1	1	1	1	1	1
21	[illegible]	3	3	3	3	3
22	3	1	1	3	3	1
23	2	1	1	1	1	1
24	3	3	3	1	1	1
25	3	[illegible]	3	2	2	2
26	1	2	3	1	1	1
27	2	1	1	1	1	1
28	2	1	[illegible]	2	2	1
29	[illegible]	2	3	3	[illegible]	2
30	2	1	[illegible]	2	2	1
31	2	2	2	1	1	1
32	1	1	1	1	1	1
33	2	2	2	2	2	1

Expert Q-Sort (continued)

	EXPERT RATERS					
Teacher Number	1	2	3	4	5	6
34	3	3	3	3	3	3
35	2	1	1	1	1	1
36	1	2	1	1	1	1
37	1	1	2	3	3	1
38	2	2	2	3	3	2
39	3	3	3	2	2	3
40	3	2	3	3	3	3
41	3	3	3	3	3	3
42	1	1	2	1	1	1
43	1	1	1	1	1	1
44	2	2	2	2	2	1
45	3	3	2	2	2	2
46	3	3	3	3	3	3
47	2	1	2	1	1	1
48	1	1	1	1	1	1
49	2	2	2	3	3	1
50	3	1	3	2	2	2
51	2	2	3	2	2	2
52	1	1	1	3	3	2
53	1	1	1	1	1	1
54	2	1	2	3	3	1
55	2	1	3	2	2	2
56	2	3	3	3	3	3
57	2	2	3	2	2	3
58	2	2	3	3	3	1
59	1	1	2	3	3	1
60	2	1	1	1	1	1
61	1	1	3	3	3	1
62	1	2	3	3	3	2
63	2	2	3	3	3	2
64	2	2	3	2	2	2
65	3	2	3	3	3	3

Data Table IIe

Modified "Factoring" of BTAI & COBS

(includes only items with more than 90% data present)

"Factor"	TPM	CP	IS	PS	COBS	No. of Items
o Professionalism				3,4 (peer)		2
o Planning	2,3,12					3
o Individualization	5,6,7	16			17	5
o Instructions and Questioning		8,9,10,21			16	5
o Classroom Organization; Materials		14,15,27			9,10,11, 22,23	8
o Methods		4,18,19			18,19,20, 25	7
o Communication		12,13,17			26,27,28, 29,30,31	9
o Behavior Management					12,13	
o Teacher Characteristics			1,2,4,5		1,2,4	7
o Classroom Interaction			6		5,6,7	4
Modification Summary				Peer / Principal		
o No. Items Retained	6	14	5	2 / 0	25	52 *
o No. Items in Instrument	14	30	12	13 / 13	31	100
o Percent Retained in " 90% Modification	42.9%	46.7%	41.7%	15.4% / 0%	80.65	*Total Carried Forward

Data Table IIf

Original "Factoring" of the BTAI & COBS

"Factor"	TPM	CP	IS	PS	COBS	No. of Items
o Professionalism			12	1-13		14
o Planning	1-4,8,9, 11-14					10
o Individualization	5-7	2-16			17,21	7
o Instructions and Questioning		6-10, 21-23			16	9
o Classroom Organization; Materials		1,3,14, 24-27			9-11,22, 23	12
o Methods		4,5,15, 18-20, 28-30			18-20,24, 25	14
o Communication	10	11-13,17			26-31	11
o Behavior Management			3,8-10		12-15	8
o Teacher Characteristics			1,2,4,5,7		1-4	9
o Classroom Interaction			6,11		5-8	5
Total No. of Items in Test	14	30	12	13	31	100